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VOLUME II

Background documentation on specific issues

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STRATEGY FOR ECONOMIC DEVELOPMENT OF THE PEOPLE'S REPUBLIC OF BULGARIA IN THE 1980s

by Ivan Angelov*

ECONOMIC AND SOCIAL PRIORITIES IN THE 1980S

The main socio-economic objective of Bulgaria during the current decade is the strengthening of the production basis and the socio-economic relations inherent to the developed socialist society. That means: considerable improvement of the living standard of the population by complex satisfaction of its material, spiritual and social needs; improvement of the living and working environment in order to ensure higher working and social activity of all members of society and harmonious development of the personality. These objectives are to be achieved through an increased production achieved by way of a higher efficiency.

The implementation of this major socio-economic objective requires the identification of certain priorities in the economic and social areas. There are four most important economic priorities.

The first of these priorities in to increase the level of intensification of economic growth. That means that the planned growth rates should be achieved mainly through higher efficiency in the utilization of production resources and not by commitment of additional resources-manpower, capital, materials and energy.

Complex measures are being undertaken for considerable upgrading the skill of the manpower at all levels, for rationalizing the organization and management of the working processes, and for substantial expansion of the area of application of various economic incentives and disincentives aiming at the individual workers, the factories and the state economic corporations. All this is expected to generate relatively high growth rates of labour productivity throughout the 1980s.

Various measures are also being taken for improving the utilization of capital, for upgrading the quality of both existing and new production capacities, for considerable improvements throughout the whole investment cycle, for radical rationalization of industrial sectoral, sub-sectoral and product structures as well as the structures of fixed and working capital, and for substantial expansion of the room of application of economic policy measures in order to create the required economic climate. All these important measures are expected to help, first, to gradually abate the increasing trend in capital intensity and, later on, to stabilize it and even to turn towards its gradual reduction.

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* Mr. Ivan Angelov, Senior Researcher, Institute of Economics, Academy of Sciences, Bulgaria.

Vigorous measures are being and will be taken to reduce the physical expenditures of raw materials, fuels and energy per unit of output in order to relax the high dependence on the import of expensive materials and energy sources as well as on the ever growing extraction costs at home. To achieve this, action is being taken for improving materials processing technologies, for recycling, for rationalization of production structures as well as the composition of the raw materials and of the energy sources used, and for broader application of economic incentives and disincentives.

Such an orientation of the economic growth strategy for the next 10-15 years is indispensible for medium-level developed economy of Bulgaria, which ranks somewhere between the advanced developing countries and the developed ones. There is no other way but a complex and comprehensive intensification, i.e. increasing the role of economic efficiency as a factor of growth. This is imposed on the country by both the internal economic condition - limited availability of production factors - and the external economic conditions - deteriorated terms-of-trade of the 1970s which is continuing in the 1980s. This deterioration of the overall economic conditions requires in an imperative manner a radical orientation of the economy towards more efficient utilization of the limited resources available.

Such reorientation is an exceptionally complex process with multiple socio-economic and techno-economic implications. It is only natural at a time of such radical reorientation from quantity to quality to allow some slowing down of the growth rates in the 1980s presently in the range of

4-5%. This is the only way, under the present conditions, to readjust the economy and prepare the necessary prerequisites for a dynamic and stable growth in the 1990s.

The second priority is a considerable improvement of the technological and quality level of the final products for the domestic and international markets. The emphasis on science and technology and on structural and investment policies is upgrading the technological level and the quality of output. This means reducing the importance of quantitative indicators at all levels of planning and orientation towards qualitative criteria. Larger and larger portions of investments will be allocated for upgrading the quality and for ensuring dynamic, efficient, competitive exports and higher quality goods for the domestic market to meet the ever growing and more sophisticated demands of the population.

This orientation of the economy would also mean in practice a declining role of quantitative, and an increasing role of qualitative, criteria for assessment of end results of any economic activity as well as in the application of economic incentives and disincentives towards the producers.

The third priority is the vigorous rationalization of the economic structures, greater consistency in the components of economic growth, and increasing the reserve margin in their planning. What is meant is a more rational relationship between the first and second subdivisions of the national production system - between groups A and B of industry, between mining and manufacturing industries - and between various branches and sub-branches of industry; radical changes in the product structures; rationalization of the structural characteristics of the population and particularly of labour resources; rationalization of production capital, of the material balances for the most important strategic and in short supply raw materials and primary energy resources; a more rational relationship between the national construction programme and the capacities of construction industry; and increasing the share of final social product and of the consumption fund in the gross social product.

The fourth priority is the strengthening of the integration of our economy with the economies of the other CMEA countries and the expansion of the mutually advantageous international economic cooperation with both the developed and developing countries. At present the Bulgarian economy is open. This will be even more typical in the future: the volume of foreign trade will get closer and closer to the volume of the national income produced. In spite of the growing difficulties due to deterioration of the terms-of-trade for us on the world market, the intention is to maintain in the future faster rates of the volume of foreign trade as compared to national income. This margin will be greater in our exchanges with developing countries.

The long-term strategy envisages ever growing socio-economic orientation of economic development. This adds to the already existing strong social emphasis in Bulgaria's overall development strategy.

Some important priorities have been identified in the social area. There are two that can be considered the most important.

First, maintaining the present relatively high rates of growth of the overall consumption fund and of the real incomes of the population and making further efforts for their even more equitable distribution by increasing the wages as well as the minimal and low pensions. Additional measures will be taken for substantial increases in the public consumption funds through which the population gets additional income (in addition to wages and other forms of direct remuneration) by way of subsidized and/or free-of-charge education or other forms of upgrading skills, holidays, health services, special care for mothers and children, (including three years paid maternity leave), transport services, food in the cafeterias belonging to factories or offices, housing, cultural and sporting facilities.

The greater social orientation of the growth rates can also be noticed in the improving ratio between the dynamics of the national consumption fund and the produced national income. It is also envisaged that the total volume of commodities - both in monetary terms and in variety - provided to the market should grow faster than the purchasing power of the population.

Secondly, the greater social orientation of the economic growth will also materialize in an accelerated over-all schedule (as compared to previous social programmes) for the solution of some important social problems: providing an independent home for each family; substantial improvement of the quality of medical services while retaining their free-of-charge nature; providing subsidized holiday opportunities to everybody who works; considerable improvements in the system of transport, administrative, legal and banking services; and taking complex preventive measures for maintaining the ecological balance and even for some improvements of the environment.

INDUSTRIAL COOPERATION BETWEEN THE PEOPLE'S REPUBLIC OF BULGARIA AND THE DEVELOPING COUNTRIES IN THE 1980S

The People's Republic of Bulgaria maintains active and mutually advantageous industrial cooperation with more than 70 developing countries. Undeniable success has been achieved in different areas of this co-operation due to the mutual interests, the complementarities in our economic structures and the growing industrial potential of Bulgaria and her partners in the developing world. The very fact that some 3-4 decades ago Bulgaria was at approximately the same level at which many developing countries are now is probably of some importance too. The ways and means used in Bulgaria to overcome the socio-economic backwardness during the past 2-3 decades may prove to be of some relevance to a number of developing countries which have set themselves the task of solving similar problems under their own specific conditions.

Cooperation between Bulgaria and developing countries has always been based on the principles of mutual benefit, equality and sovereignty of the partners; i.e., what is usually meant under the New International Economic Order. For Bulgaria there has never been and there will never be another approach in economic relations with developing countries but the rule of equality and justice.

Bulgarian international economic relations have been laid on a sound legal contractual basis: intergovernmental long-term agreements and contracts for trade, economic, scientific and technical co-operation as well as for co-operation in specific industrial fields.

The cooperation between Bulgaria and some developing countries is being carried out in a particularly favourable political climate. Intergovernmental agreements for bilateral cooperation until 1990 have been signed with some of these countries. This provides stability and complexity to our economic relations with these developing countries.

The planned character of the economy provides conditions for steady industrial cooperation with developing countries. This cooperation corresponds to the socio-economic priorities of these countries and promotes the fulfilment of their own national development plans and programmes. The industrial projects so established become an integral part of the national industrial complex of the countries concerned.

The Bulgarian exports to developing countries comprise mainly industrial goods: machinery, equipment, materials, etc. The increase in the share of the engineering industry products suits the priorities of these countries. The growing specialization within the CMEA would enable Bulgarian producers to offer a greater variety of industrial goods in the future.

The import from developing countries to Bulgaria squares with the capacities and interests of these countries and with their industrial strategies. The commodity list reflects an increase and diversification of the import of semi-manufactured and finished industrial products. Some of these products are consumer goods such as: garments, shoes, household appliances, medicines, etc. Others are products of the recently developed heavy industries in these countries: chemicals, tools, devices, steel-hawser, cables, insulation materials, machinery.

The increase of the degree of processing of the imported raw materials and goods is a very important trend in the imports from developing countries: import of phosphate fertilizers instead of raw phosphates, cotton-yarn and fabrics instead of raw cotton, etc. These important phenomena reflect a process of gradual adaptation of the Bulgarian industry to the emerging new industrial structure and more diviersified export potential of the developing countries.

Bulgaria promotes the development of new industrial capacities and the launching of production of new industrial products, based on domestic resources. The potential for such industrial co-operation is ever increasing in line with the stage of development reached by the economy. These opportunities are particularly broad and promising in the field of agro-industries, where Bulgaria posesses experience, traditions, skills and appropriate modern technologies. Industrial co-operation is developing successfully in other branches as well - such as light industries: textiles, leather and footwear, extraction and processing of minerals, construction industry, electric power generation, chemical industry as well as engineering industries.

An important feature of the industrial co-operation between Bulgaria and the developing countries is the provision for repayment of credits by the products of the newly established projects. This provides far more certainty in the start of the new production, which by itself generates resources for repayment of loans and does not cause balance-of-payment's difficulties to the developing countries concerned.

The training of tens of thousands of specialists and skilled workers is one of the important elements of the industrial co-operation between Bulgaria and developing countries. Such training is being carried out both in Bulgaria and on the spot in the respective countries as agreed upon within the framework of the joint intergovernmental commissions and their subsidiary bodies.

The industrial cooperation between Bulgaria and the developing countries materializes through various practical forms. A traditional form of co-operation is the selling of complete sets of equipment and production lines for different industrial branches. This form is very promising for future industrial economic relations, as it provides for very broad opportunities for the carrying out of various other industrial cooperation activities: preparation of feasibility studies, construction services, training of local personnel, provision of know-how, extension services, marketing and distribution services and so on.

Very promising also is the activity of the joint ventures, as well as international industrial specialization and subcontracting. The joint ventures help to establish longer lasting economic ties between the partners, who are equally involved and responsible for the production and marketing of the output. The main difficulties faced so far in this type of co-operation have been caused by the differences in the economic and legal arrangements of the countries concerned and by the insufficient experience.

The international specialization and production subcontracting with developing countries in the industrial field is in its early stages. The assembly of Bulgarian machines in developing countries is being carried out with a progressively growing local production of components. Contracts have been signed for deliveries of specialized products. There are many engineering industry products which provide room for international subcontracting with developing countries: hoisting and transport material-hanging equipment, machine tools, wood processing machines, electrotechnical equipment, agricultural machinery, tools and implements, etc. Opportunities for co-operation in other industrial branches are also available.

The promotion of some important industrial branches in the developing countries, which demand large investments and modern technologies provides opportunities for tri-lateral and multi-lateral industrial co-operation.

Bulgaria has certain experience in such co-operation - in the construction of complete plants and installations in developing countries in partnership with other socialist and Western countries. This form of co-operation will expand in the future. The ever growing economic integration among the CMEA countries offers additional opportunities for expansion of tri-lateral and multi-lateral industrial co-operation for the benefit of the developing countries.

The People's Republic of Bulgaria has been cooperating actively with UNIDO for many years in assisting developing countries in selected areas of industrial development. This co-operation will continue in the future on a broader basis.

STRATEGIES AND POLICIES FOR INDUSTRIALIZATION IN THE DEVELOPING COUNTRIES by Ivan Angelov*

The development of the strategy for industrialization in the developing countries during the next 15-20 years is taking place under difficult internal and international conditions.

The world capitalist economy is still in recession. The 1980s are likely to be a difficult period for the developed Western countries. This will affect the economies of the other countries, and particularly the developing countries.

The growth rates in the socialist countries have also slowed down in recent years, due to the implications of the economic crises in the Western countries, the energy price, and the very important transformations of the economy from an extensive type of growth to an intensive one. However, even under such complicated conditions the economy of the socialist countries remains the most dynamic sub-system of the world economy.

The crises of the world capitalist economy badly affects the socio-economic progress of the developing countries. The growth rates declined in almost all developing countries and especially in the less developed ones, where the *per capita* gross national product has fallen. The social problems become more and more acute and the societies are confronted with very serious social conflicts. The 1980s promise to be extremely difficult for these countries.

The successful industrialization of the developing countries depends to a great extent on the choice of an over-all strategy for industrialization and its major components. This paper does not and cannot claim to have described all components of the strategy for industrialization and all policy measures supporting the industrialization strategy. The paper only tries to elaborate briefly on some key elements of the strategy for industrialization and some relevant policy measures. The paper does not claim to be exhaustive.

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* Dr. Ivan Angelov, Senior Researcher, Institute of Economics. Academy of Sciences, Bulgaria.

The choice, the elaboration and implementation of a strategy for industrialization and of an appropriate policy instrument is an exclusive prerogative of the peoples and governments of the developing countries. The thoughts, expressed here on these issues, only aim at contributing to the exchange of views on the subject matter. The intention is not to impose our views on these countries.

SOCIO-ECONOMIC ORIENTATION OF THE STRATEGIES FOR INDUSTRIALIZATION IN THE DEVELOPING COUNTRIES IN THE 1980S and 1990S

Nobody argues today that industrialization has to be done simply for the sake of industrialization. Industrialization is a means for solving socio-economic problems of vital importance for the nation and for overcoming the socio-economic backwardness.

Under the conditions of the developing countries this means: production of the necessary goods and services in terms of quantity, quality and structure, in order to satisfy the needs of the majority of the people and not mainly those of the rich classes and for export, achievement of fair distribution of income among the various social groups of society; providing jobs for everyone who can and wants to work; much more care for education and health services; liquidation of the inadmissible for our times absolute poverty and starvation of about 800 million people; satisfaction of the basic needs, such as food, clothing and shelter; integration into the stream of social and economic progress of all citizens of the developing countries, regardless of sex, religion, race, political convictions, tribal and cultural affiliations; upgrading the attractiveness of the working process; solution of the social problems, connected with the more even development of the different regions of the countries; preserving the ecological equilibrium and so on. In brief, industrialization must provide better working and living conditions for all members of the society. No social group should be deprived of access to the fruits of the industrialization.

When developing a strategy for industrialization the focal point must be man and not the machines, the technology or the institutions. One should look for such machines, technologies, institutional and economic structures - and if necessary should change existing social structures - so that the life of hundreds of millions of ordinary people becomes longer, more attractive, more productive and societies, in which these people live, become fairer both internally and internationally. This should, from a socialist point of view, be the main socio-economic content of a national, regional or international strategy for industrialization. The national strategies for industrialization may differ only in the ways and means of achieving these noble socio-economic objectives.

The Lima target for the 25% is well known. Equally well known are the different views concerning the attainability of this target. The setting up of such a global target for the developing countries by the year 2000 is a very important event. But it is not less important to take a look at the socio-economic content of these 25%. Because even if this quantitive target was achieved, the real impact on the well being of millions of ordinary people in the developing countries would be determined mainly by the socio-economic content of this industrialization. The life of these ordinary people will hardly improve and the number of starving, illiterate, unemployed and sick persons will hardly decline if behind these 25% there are economic structures which do not serve the majority of the population; if these structures and technology levels are tailored predominantly to the needs of the upper classes and the foreign markets; if the transnational corporations dominate entirely over the economies of the developing countries, behave as all-powerful owners, set up ultra-modern projects manned mainly by foreign skilled labour and having closer production ties with daughter enterprises in other countries rather than with production units from the host country; and if the foreign exchange earnings are not used for means of productions and import capital and other goods, necessary for the broad masses of the population.

Therefore the Lima target can be considered achieved only if these 25% contain industrial capacities and structures which serve the vital national interests of the developing countries, the interests of the majority of their population, if they contribute to the acceleration of economic growth, to overcoming the socio-economic backwardness and to facilitating an integration in the international division of labour, which would help to achieve the strategic national objectives.

Feelings are being expressed here and there that giving priority to the socio-economic orientation of the industrialization would be at the expense of the rates of economic growth. This might be true for the short-term. For the long-term however, a dynamic and stable growth can be guaranteed only by a strategy which draws dynamism from both the economic and socio-economic forces and aims at solving the major socio-economic problems of a nation.

The substantial difference between the notions "growth" and "development" boils down to this. The subject has been discussed at length during the last 15-20 years both in the developing and developed Western countries. It has been solved a long time ago in the socialist countries in theoretical as well as in practical terms. The results of the socio-economic orientation of the strategy for industrialization in the socialist countries are well known.

Industrialization, however, does not solve these important social and socio-economic problems of society automatically. A strategy which has been ill planned or implemented can even bring about a deterioration in existing social contradictions; an increase in the scale of starvation; more acute social ineqality; larger unemployment and underemployment; more uneven regional development within a country; deteriorating living conditions in the urban industrial centres; brutally ruining centuries old moral and ethical values, without helping to create new ones, and providing for some sort of continuity between them.

Therefore, what developing countries need is a genuinely democratic, socially oriented strategy for industrialization. A strategy is needed, which not only sets up democratic socio-economic goals to the process of industrialization, but also provides deomcratic conditions, institutional mechanisms and means for their implementation. This strategy must give a clear answer to the question of industrialization for whom. One cannot rely here on automatism. It is well known that the hope that rapid economic growth would by itself solve the acute social problems of developing countries did not materialize. Even less promising are the models for industrialization offered by the developed Western countries. A characteristic feature of these models is the dominating role of the market, with it's well known mechanism and driving forces. In this mechanism the rate of profit is the ultimate criterion for a sectoral or sub-sectoral allocation of resources. Such a criterion is not a suitable instrument in solving the social problems of the majority of the developing countries. There are numerous examples in the developing countries supporting this conclusion. They hardly need to be commented upon.

This logic of thinking leads us to the conclusion that only the state is able to develop and implement a truly human, democratic and socially oriented strategy for industrialization. This could be achieved only by a state with democratic institutions, taking into consideration first of all the interests of the majority of the population and providing real conditions for their participation in the elaboration of such a strategy and pertinent policies. One of the most important prerequisites for this is the establishment of such social relations, which would enable the development and implementation of a genuinely humanistic strategy for industrialization. These social relations can only be based on public ownership of the means of production - state and cooperative - and on appropriate mechanisms of distribution of income among the participants in the social national production process.

If we agree that industrialization should contribute to improving the living conditions of the entire population, it follows that it should also contribute to a gradual elimination of the social and economic contrasts. But does it really happen?

In the course of the last two to three decades one has witnessed a process of socio-economic polarization on a large scale within as well as among developing countries; between the developed and the developing countries. There are enough reasons to believe that this process will continue unabated in the 1980s and the 1990s. Taking into account the real purchasing power of the currencies, the average per capita income in the least developed countries in the year 1980 was 12 times lower than the level in the developed Western countries. By year 1990 this gap will grow bigger, because the per capita GNP of the least developed countries is expected to grow 1.8% per annum, as compared to 3.1% for the developed Western countries. And this is under an optimistic scenario for economic growth. In the pessimistic case the gap would be even larger.

The GNP per capita in 1980 of the least developed countries was 7.7 times lower than the level of the more advanced developing countries. By 1990 this gap is expected to be 9 times, and by 2000 over 10 times larger. The number of people living in conditions of absolute poverty is expected to increase by 1990 and 2000. Very complex socio-economic factors are at the roots of the process of differentiation among the developing countries. Differences in their historical backgrounds as well as substantial divergencies in their present socio-economic conditions may help in understanding the logic of this process. Such differences, however, should not overshadow the important common features and common strategic interests of the developing countries. The curbing of the process of socio-economic polarization at a national scale demands profound democratic, socio-economic restructuring in many developing countries. The checking of this process at an international scale necessitates large-scale democratic restructuring in the international economic order, in its entire mechanism and supporting institutions. Such reshapings would create the prerequisites for social equality and justice both at national and international scale.

THE ROLE OF THE STATE IN THE DEVELOPMENT AND IMPLEMENTATION OF STRATEGIES FOR INDUSTRIALIZATION IN THE 1980S and 1990S

It is difficult to talk about strategy and policies for industrialization in developing countries without reviewing the role of the subject of this strategy - the national state. The only institution in these countries, capable of developing and implementing a national strategy and policies for industrialization is the state. Hardly anybody in our days would argue seriously against it.

Of course, the views of some followers of the neo-liberal school, who claim "that the end of sovereignty" has come, and that the "functions of the national state as an economic unit are historical facts", that the national state becomes "an anachronizm" and so on, are well known. It turns out that, according to this school of thinking, the young national states in the developing countries have no other choice but to surrender their economic functions to the transnational corporations and to retain for themselves only the police functions - the maintainance of law and order.

The social practice in developing countries, and not only there, has rejected categorically such statements a long time ago, so that it is not necessary to do it again.

In these times one could hardly find a country, no matter of its ideological and political orientation, where the state does not exercise some kind of economic-organizational functions more or less actively: by using instruments for direct administrative interference, or economic policy measures; applying the methods of directive planning or of indicative planning; and so on. The choice of one way or the other is a sovereign right of the nations and their governments, bearing in mind the local conditions and dominating political orientation in these countries.

And if this subject is nevertheless dwelt upon, it is because it is believed that every developing country needs a clear cut concept and should make its own choice. The lack of a concept and of appropriate practical steps for its implementation may have negative implications for the economies of the developing countries concerned.

This is so because under the expected difficult domestic conditions for economic growth in the 1980s in most of the developing countries, the significance of an appropriate strategy and policies for industrialization increases considerably. As has already been pointed out the current decade offers extremely difficult international conditions for industrialization of the developing countries. This obliges the state to carry out as actively as possible its economic-organizational functions in order to soften at least partially some of the negative effects on the economies of the developing countries. Under these difficult internal and international conditions for industrialization, the developing countries have to determine by themselves whether it would be sufficient for the state to confine its economic activities just to some regulating, stimulating, indicative and other auxiliary supporting functions, aiming at the creation of a favourable economic climate for the private national capital or for the foreign capital.

The main issue however boils down to the following: should the economic-organizational function of the state in the developing countries be confined to such subsidary supporting activities and does this correspond to the long-term strategic socio-economic interests of these countries?

May be the vital interests of the people of the developing countries demand much more under the anticipated difficult domestic and international conditions of economic growth? By saying much more one means: a decisive and direct interference of the state in running the over-all production and economic activities, in assuming direct economic functions and responsibilities, in mobilizing and allocating investments, in developing and implementing a strategy in the science and technology area, in setting up more rational economic structures; in industrial manpower training, in creating highly efficient state and cooperative enterprises in the key sectors of the national economy, in exercising an effective control over the activities of the transnational corporations in the respective developing countries and in developing and implementing long-term strategies for participation in the international division of labour.

One also means a more active role of the state in the expansion and consolidation of the domestic market and its protection when and as necessary, in strengthening the export potential of the national industry, in stabilizing the national banking system, in selecting a suitable type of combination between extensive and intensive economic growth which would be the most appropriate for solving the existing social problems, and in exercising a full sovereignty over the national resources and over all economic activities taking place on the national territory.

It is difficult to imagine the successful fulfillment of these important economic-organizational functions without resorting to national planning - short-, medium-and long-term. In doing so, it is important to look for a rational combination between direct administrative orders and economic policy measures with a view of applying relevant incentives and disincentives and to create the most appropriate economic climate for achieving the targets of the plan.

In this connection, a clear strategy is needed on the role and place of the state sector in the industry and in the national economy and a clear definition of its social and economic functions. With a view of avoiding unnecessary often openly biased discussions on the role of the state sector one needs a comprehensive criterion or a set of criteria for assessment of its real socio-economic contribution to the national economy. Apparently narrowly defined economic or techno-economic criteria would not serve the purpose. Much broader and more comprehensive socio-economic criteria should be applied.

Is it not obvious that the public sector in the economy of developing countries is usually expected to perform multiple interrelated socio-economic functions, some of them being of strategic importance, such as: contributing to achieving full employment; more even distributing the industrial activities throughout the various regions of a country; developing infrastructure and key industrial sectors, such as basic industries, energy generation, capital goods; implementing appropriate science and technology strategies; investment, structural and foreign trade policies, strategies for human resources development; policies of labour remuneration and price policy and producing strategic raw materials as well as manufactured products guaranteeing independence, vis-à-vis potential foreign pressures and the national security of a country under certain circumstances? The successful performance of these extremely important strategic functions of the public sector cannot be properly evaluated by the rate of profit. The rate of profit is a too narrow and misleading criterion for assessment of the socio-economic functions of the public sector.

These considerations prove unambiguously that there is no ground for underestimating the role of the public sector in developing countries. Moreover, a neglect of the public sector contradicts the strategically vital socio-economic interests of the majority of the population in these countries. The public sector deserves an appropriate place, alongside with the private one in the industrial structures of the developing countries. Moreover, in some key sectors of the economy it has proven undeniably that it can perform vital socio-economic functions which the private sector can not.

The mechanism of the international economic cooperation should be used for rendering assistance to developing countries and especially to the least developed among them for strengthening the public institutions entrusted with running the economies at various levels. There are sufficient reasons to expect that the role of the state in the development and implementation of strategies and policies in developing countries will become a key political and economic issue in these countries in the 1980s and the 1990s. The experience of the socialist countries in this field during the last 30-40 years is instructive enough. One can state without exaggeration the considerable socio-economic achievements in their industrial development would have been impossible without the active economic organizational functions of the state, applying various management instruments subject to the specific national circumstances and the international environment.

STRATEGY ON FINANCING THE INDUSTRIALIZATION OF DEVELOPING COUNTRIES IN THE 1980S AND 1990S

One of the most complex problems of the majority of the developing countries is the financing of their industrialization. The complexity and the difficulties connected with the industrial development financing during the next 15-20 years will probably increase. That requires a re-examination and updating of the existing strategies and the relevant economic policy measures in compliance with the changing external and internal economic development conditions in the 1980s and the 1990s.

For the majority of the developing countries the main sources of finance are the domestic savings. Such savings are collected through different channels and well-known instruments are used for the purpose: profit taxes, direct and indirect taxes and excises, tariffs, customs, domestic loans, personal savings, the mechanism of the credit system, etc. The rational use of the various economic policy instruments for the mobilization of domestic resources for savings has always been an issue in developing countries. These countries will be facing such problems during the next 15-20 years, naturally with different subtlety, depending on the specific situation. It is hardly possible to give instructions on the use of these instruments valid for all developing countries.

An important problem the majority of the developing countries face is the limited capacity for internal savings due to the low productivity, the low level of *per capita* income, its unfair distribution and irrational consumption. No matter how rational the domestic saving mechanism is, the possibilities for increasing the saving rate are modest especially in the least developed countries; and there are limits that cannot be exceeded on economic, social and political grounds. The achieved rate of gross domestic savings in a number of developing countries is not at all low - about 22% in 1980 - and it is expected to grow slowly to about 24% by 1990.

The limited potential for domestic savings will probably be felt even stronger during the current decade, due to the anticipated greater increase of the prices, under which the developing countries purchase goods on the international capitalist market in comparison with their selling prices. That imposes additional restrictions on their possibilities for real accumulation. Added to that are the low efficiency in the use of the limited investments due to the long lasting and expensive construction, slow commissioning, underutilization of available capacities, etc. In one way or another this is a typical feature for most of the developing countries.

In this complex economic situation it is necessary to elaborate the most rational possible strategy for better mobilization and more rational utilization of the domestic financial resources applying the adequate economic policy measures. This task is especially difficult for the least developed countries.

A second major source for financing the industrialization are the different forms of external resources: aid, credit, foreign capital. At a first glance for the developing countries as a whole the share of the external resources is not so high - about 13% of the total investments in these countries - but for the least developed countries it is substantially higher. Besides that, the importance of the external financial resources is determined also by their utilization for import of machines, strategic materials, new technologies.

The use of foreign credits for industrial development financing is not a novelty for the developing countries. What is new during the last years and will be felt in the remaining part of the current decade is the sharp increase in the share of the private bank credits, the aggravated terms for obtaining such credits and for their repayment due to well-known causes. This led to astronomic increases of the developing countries' foreign debts to a total of about 450 billion dollars at the end of 1981, and of about 620 billion dollars at the end of 1982. This was particularly a phenomena characterizing a number of countries, especially in Latin America.

The deterioration in the international economic climate makes the payment of the debts more difficult. And this leads to a chain aggravation of the internal economic conditions in the respective developing countries. This situation very much increases the relative share of the gross foreign exchange earnings from exports, used for payment of credits and interests on them. In some developing countries this share has reached dangerous limits, due to the large debts and drastically reduced foreign exchange earnings. That undoubtedly will restrict their capacities to take new credits during the 1980s. This in turn will contribute to the decline of their industrial growth during the 1980s and further delay the solving of outstanding acute economic and social problems. The balance-of-payments positions of some developing countries will be further aggravated by the reduced remittances of their emigrant workers in other countries due to the unfavourable economic conditions.

The deteriorating structure of the use of the acquired credits is also alarming. The share of the resources used for the payment of interest is growing from less than 20% in 1975, to about 30% by 1990 under favourable variants of growth, while the share of the credits used for imports and reserves is declining from about 50% in 1975 to less than 20% in 1990 under favourable varients of growth.

This alarming situation requires the governments of the developing countries to re-examine and to adapt their strategies on the utilization of foreign credits and to take adequate measures, using wisely the available instruments of economic policy.

The national strategies of the developing countries should be supported by adequate constructive measures of the developed Western countries who bear the major responsibility for the present situation due to their economic policies during the last 20-25 years. Turning to the facts, a lot has been said about the official development assistance of the OECD countries for the developing countries. Sometimes it is being used to illustrate the generosity of the developed Western countries in contrast to the socialist countries, whose aid - it is being said - is several times smaller.

Leaving aside the fact that uncomparable phenomena are being compared, what are the figures? According to the World Bank the official development assistance from the OECD countries reached its maximum of 27.3 billion dollars in 1980. At first sight this is an impressive figure. But, according to Tinbergen's assessment about 50-100 billion dollars are repartriated annually from the developing countries to the OECD countries in the form of excess profit. Very impressive figures indeed. Even more impressive is the margin between the granted aid and the excess profits received. This figure is so impressive that one can not refrain from asking a legitimate question - how long in the future will such "aid" be provided to the developing countries?

STRUCTURAL STRATEGY FOR THE INDUSTRY IN DEVELOPING COUNTRIES IN THE 1980S AND THE 1990S

It is well known that the branch structure of industry depends on many factors: the scale and structure of domestic and world markets, the available material resources, the skilled manpower, the participation in the international division of labour, etc. These and a number of other factors should be taken into account for the elaboration of a structural strategy in any developing country. Since the combination among these conditions varies in the different countries, it is natural to have different structures as well.

A strategic consideration in the formation of an industrial structure during the following 15-20 years should be increasing the degree of local processing of the mineral and agricultural raw materials and producing more manufactured goods for the domestic market and for export. However, the criterion for the elaboration of one or another industrial structure should not be only an economic one. The process of industrialization and the formation of an industrial structure is part of the broader and more complex process of deep social and economic transformations. The creation of an industrial structure should be subordinated to and serve that process.

The priority given to the development of industry and the formation of an appropriate industrial structure does not mean neglecting the other sectors of the economy. It is obvious that the development of industry should not be at the expense of agriculture. The economic links between the two basic sectors of the national economy leave their profound mark on the branch structure of industry. In principle, after an appropriate evaluation of the specific conditions, the developing countries should give priority to industrial branches which serve the agriculture and facilitate its modernization (agricultural tools, implements and machines, irrigation systems, fertilizers and other chemicals) as well as to agro-based industries such as the food processing industries and light industries.

Considering the possibilities and necessities, some of the basic industrial branches should also be developed: production of metals, chemicals, construction materials, as well as power production and some other branches of the manufacturing industry among which engineering industries are of particular importance. A suitable combination between modern and traditional industries should be maintained as both groups perform important economic functions in most of the developing countries. The efforts for overcoming the monocultural character of the economic structures of a number of developing countries should also continue.

The process of restructuring of world industry will also effect the sectoral structure of industry in developing countries during the next 15-20 years. The intensity of this impact will depend on the scale of the restructuring process. The socio-economic implications of such a restructuring for the developing countries will depend on the character of this process.

Obviously, the companies from the developed Western countries participating in this restructuring will follow their own interests. The developing countries have also their interests. An appropriate co-ordination of the partners' interests is needed by taking account of the national socio-economic objectives of the respective developing countries. If the future transfer of industrial activities to developing countries is allowed only because they have already become inefficient in the developed Western countries, or because of the changes in the market conditions, in the prices of primary commodities and power resources, in the salaries and wages, in the tariffs of transport services, or because of environmental pollution, it will not be difficult to guess who would benefit from such a restructuring.

The participation of transnational corporations in the restructuring process usually harms the developing countries. These companies concentrate their investments in highly monopolized industrial activities; these investments are not technologically and economically interconnected with the existing economic structure of the developing countries and they do not develop or complement it. These companies usually use technologies which are not suitable for the developing host countries and they neither ensure additional employment for the local labour forces, nor contribute to upgrading local skills for further usage in other important branches of the national economy. Quite the contrary, very often they deprive other branches of the local industry of their skilled staff by offering higher salaries, promises of a better professional career and other forms of material and moral incentives.

The so-called "Restricted Business Practices" of the transnational corporations cause considerable damages to the developing countries. The matter is that a greater part of the host country's profit is illegally taken out of it by means of artificially high prices of materials, semi-manufactured products, components, technical documentation, etc., supplied by the mother company or subsidiary branches in countries with lower profit taxation. For the scale of these operations one can judge by the fact that the so called "intra-company trade" - trade with the company - amounts to about 30% of the whole volume of world trade.

Other forms of such internal transactions used to harm the developing countries are: giving credit from one branch to another at an artificially high rate of interest; selling patents and licences of technologies at extremely high prices; and rendering different services at unjustified high tariffs, etc. Similarly, evasion of taxation, customs, foreign exchange and other laws are accomplished also by remittance of the foreign specialists' salaries.

Very often the governments of the developing countries are not able to counteract against these unfriendly practices of the transnational corporations. As a result, the interference of these giants in the restructuring in most cases leads to slowing down the rate of industrial development in the developing countries instead of assisting it. This is noted down in UNIDO publications, where Tinbergen declares that the transnational corporations at an increasingly high degree enter in conflict with the universal and national aspects of development both in the rich and poor countries.

The appetite of the transnational corporations is not confined only to industrial restructuring in developing countries. There is a good number of cases indicating that these companies often go beyond their official terms of reference by trying to "restructure" the political systems of the host countries, if the existing political structures are not to their liking. The examples are well known. Some of them are referred to in UN pulications as well as in the Brandt Commission Report.

Perhaps, a clarification is needed here. It is evident from the above, that the consequences of that unequal "co-operation" with the transnational corporations are often harmful to developing countries. This "co-operation" boils down to an uncontrolled usage of the scarce resources of the developing countries by these companies. One must underline again the word "uncontrolled".

It does not however follow from this that one can not recommend the developing countries to avoid any co-operation with transnational corporations. Such a recommendation would have been unrealistic, incompatible with the existing economic conditions. The main objective of our observations is to stress on the necessity of a truly equal co-operation between those unequal partners; the absolute necessity for the authorities of developing countries to control effectively the activities of these companies; the unconditional and absolute subordination of the transnational corporations to the legislation of the host countries; and the need for international arrangements for helping developing countries in exercising such control. The branches and spheres of activities of the transnational corporations should be specified by the governments of developing countries and they must correspond to the socio-economic priorities and interests of their people.

In this respect, the socialist countries within their capacities, conduct a policy of industrial co-operation with developing countries aiming at the co-ordinated development of selected industrial branches, sub-branches and important commodities on a long-term basis. The principles and conditions of this co-operation are negotiated at the level of existing joint intergovernmental commissions, specified in details at the respective working levels and implemented within the contractual agreements.

Considerable untapped opportunities for improvement in the industrial structure are available through co-operation among developing countries on sub-regional, regional and inter-regional basis. The general principles and the main directions of co-operation among them for developing mutually complementary industrial structures have been discussed at high-level meetings of the leaders of these countries. One of the promising forms is the establishment of joint enterprises and joint economic organizations. The efforts should now be directed to the concretization and implementation of the agreed general principles, as well as to further improvement of the economic, legal, institutional and other mechanisms of this co-operation.

STRATEGY FOR THE MARKET ORIENTATION OF INDUSTRY IN DEVELOPING COUNTRIES IN THE 1980S AND THE 1990S

Developing countries have already gathered a significant experience in the development and application of import substitution strategies, the export oriented strategies, and strategies of industrialization oriented towards the basic needs of the population for food, clothing, and shelter. Other alternatives or combinations of alternatives of these strategies may be listed as well.

Taking into account the great variety of internal and external conditions of the economic growth in developing countries during the following 15-20 years, it would be hardly possible and advisable to recommend any unified strategy, valid for all developing countries - small and big; advanced and backward; possessing raw material and power resources and deprived of such; possessing financial resources or in need of such; etc. Besides, the political orientation of the respective governments undoubtedly influences the choice of inward or outward market orientation or a combination between them. This also influences one or another foreign economic orientation - to the developed Western countries, to the socialist countries or to the other developing countries.

The exclusive variety of conditions in the developing countries during the current and the following decades will set its mark on the choice of a relevant strategy and the relevant economic policy measures. It is therefore difficult to draw general conclusions.

One conclusion may be drawn, however, without running the risk of making a mistake. Many developing countries are expected to strengthen the export orientation of their industrial structures by trying to earn foreign exchange for purchasing machines, raw materials, fuels, food, etc., under deteriorating terms of trade and worsening conditions for the repayment of the accumulated debts. An additional argument in favour of such an orientation may be the impressive success during the 1960s and 1970s of some developing countries which have adopted an export oriented strategy of industrialization.

But caution is needed here while making such comparisons and assessments. Leaving aside the geo-economic and geo-political factors that played a decisive role for the success of some developing countries in South-East Asia, one should bear in mind that the international economic conditions in the 1980s differ from those in the 1960s and the 1970s. The average figures should also be interpreted very carefully. The prevailing part of the exports of the developing countries at that time was generated by several countries - three of them with less than 3% of the population of the Third World - provided 40% of the exports of industrial products to developed Western countries. Their number will now increase, the competition among the very developing countries will become tougher, while the market conditions are getting worse. The tariff and non-tariff protection measures of the developed Western countries are being intensified. The most dangerous competitors - exporters - are forced to "voluntarily refrain" from exporting their goods on foreign markets.

Contrary to the non-discrimination principle, the developed Western countries apply towards the developing countries, more strict restrictions for import of industrial goods than towards each other, which is very obvious with the non-tariff restrictions. The higher the degree of processing, the bigger are the import duties. This is the so-called escalation of the tariff rates, which means that a considerably higher effective protection of the local products is hidden behind the nominal increase of the customs duties. And all this is being done accompanied with statements for "understanding" and promises for "help" while the developed Western countries export into the developing countries about four times more manufactured goods than they import from them.

One can add to that the not very favourable prospects for reviving the economic growth in the Western countries during the forthcoming years. The difficult market situation in the developed countries limits the demands for industrial goods from developing countries and incites additional protection measures. Naturally, this will continue to hamper the export of industrial goods from developing countries.

For the time being, there are no reasons to expect essential changes in the forthcoming years in the intensity of the neo-protectionist measures. At the present situation, the chances for success of the export-oriented strategy during the 1980s are considerably less than those during the 1960s and the 1970s. The developing countries will have to take this into account and to explore actively opportunities for possible co-ordination of their national export-oriented strategies.

As a result, the developing countries oriented mainly towards the developed Western countries are risking their economies to a greater extent. All cyclic variations in the Western countries' economies, the protectionism, the raising prices and international transport tariffs, the more expensive credits, etc., will be passed to the economies of the developing countries, as well. The latter, being more fragile, will bear the drops more painfully.

The interference of the transnational corporations in such an export orientation of the developing countries' industry will further complicate their situation in spite of the statements one hears that these corporations facilitate the export of manufactured goods from these countries. Publications of the UN also confirm that transnational companies do not participate constructively in the implementation of the export strategies of developing countries.

The governments of the developing countries should duly search for strategic decisions concerning the preparation of their economies for the severe international economic conditions and for identifying acceptable alternatives.

One of the possible strategic directions is diversified export orientation in order to avoid a complete binding to the economies of the Western countries. In practice this would mean the exploration of opportunities for expansion of economic relations with socialist countries and with other developing countries. It is quite obvious that the 1980s and the 1990s will offer additional opportunities for enlargement of the mutual economic exchanges in both directions.

Another area could be the more active co-operation among the developing countries in elaborating a co-ordinated strategy and policies in their export orientation towards the markets of the developed countries. Even greater are the potential opportunities for expansion of regional industrial co-operation, among developing countries - especially among countries with complementary industrial structures, for gradual step-by-step integrations of their economies in the future. The specific forms of such co-operation are well known. Attempts for such co-operation have been made and are being made, although not always successfully. Bearing in mind the complexity of these problems one should not dramatise such failures. One should learn proper lessons from them.

What is important to notice, is the gradual ripening of the necessary economic and political conditions for the activation of regional and sub-regional co-operation during the 1980s and the 1990s. The governments of the developing countries should jointly analyse and reveal these opportunities and take the necessary practical measures. The developed countries may also play a useful role on the basis of bilateral, trilateral or multilateral co-operation. Socialist countries have already certain experience in this respect.

Another important direction could be the adoption of a strategy for active involvement of the state in promoting a rational industrial structure; in the choice of export orientation; in strengthening the position of the state and co-operative sectors in the key branches; in the rational utilization of the instruments of economic planning and so on.

In facing the hard external economic conditions of the 1980s, it is more imperative for most of the developing countries to take measures for increasing their foreign exchange earnings through expansion of exports and reducing foreign exchange expenditures through import limitations. The parallel conduction of such a strategy is difficult even for developed countries, and far more difficult for developing countries. Therefore, the decision should be sought in some realistic balancing between import substitution and export orientation of the industry.

The current practice offers well known economic instruments for the achievement of such balancing. The difficulties are related to the practical application of the same sets of instruments, at the same time and with the same purpose by a number of countries - both developed and developing: quotas, tariffs, credits, subsidies, prices; foreign exchange rates, voluntary restraints, administrative control, etc. The indiscriminate utilization of these instruments by all countries hides great dangers, especially for the developing countries. It is necessary to look for decisions by means of bilateral or multilateral co-operation in the utilization of these instruments, paying special attention to interests of the weaker partners - the developing countries.

STRATEGY FOR INDUSTRIAL MANPOWER TRAINING IN DEVELOPING COUNTRIES IN THE 1980S AND 1990S

It is well known, that man is the most important productive force of every society. This applies both to the developed and to the developing countries. The availability of sufficient manpower in terms quantity and quality is the most important precondition for the accomplishment of the designed strategy for industrialization in developing countries during the following 15-20 years.

The developing countries exert a lot of efforts for manpower training and allocate considerable funds for the purpose. The share of the expenditures for education amounts to about 4% of their gross domestic product. However in many least developed countries the expenditures for education are only symbolic - the central government budgets in some of these countries allot only 2-7 US dollars per capita for education and 1-4 US dollars per capita for public health services.

Some rough assessments indicate that the manpower in the world would increase by about 40% by the year 2000 in comparison with 1980. This growth will exceed 50% for the developing countries. These figures, though approximate, are indicative enough of the enormous scale of the task of training this manpower. The successful fulfillment of this gigantic task is hardly possible without the development of clear-cut national and international strategies for the training of industrial manpower in developing countries.

The national strategy for training of industrial personnel has to be co-ordinated with the overall strategy for industrial development; with the structural strategy; with the strategy for technological orientation, including the strategy for labour-intensive technologies; the strategy for application of mechanization and automation of production processes, etc. In other words, the strategy for industrial manpower training should be interrelated with all other strategic aspects of socio-economic development.

The strategy so adopted should then materialize in long and medium-term plans and programmes for development of the sub-systems of the formal education system and for other forms of industrial manpower training. This strategy should define the profile of the national education system, the character of the primary and of the secondary general education, of the secondary technical and vocational education and training of the general and specialized university education, and of the realtionship between the formal education system and the other forms for acquiring or improving skills. In addition, it ought to show the role of the state, of the co-operatives, and of the private sectors in training of the required qualified workers, specialists and managerial personnel.

The capacities of most of the developing countries are insufficient for solving this enormous task. The assistance of other countries and of the international organizations is indispensable. There is no other area of the socio-economic development of these countries where the necessity of international assistance is more useful and urgent.

The strategy for training of industrial personnel has also to take into account the social conditions in the developing countries. The larger part of the families do not have sufficient incomes to finance the education of their children. In some cases the difficulties are psycholgical, religious and the like. Acting in the line with the specific national conditions, an important task of the state is to make the educational system, including the higher education, a democratic and accessible one for all fractions of the population and not only for the social groups with the highest incomes. This can be achieved by a number of well tried expedients. In this respect the experience of the socialist countries is instructive enough. Some of the developing countries have accomplished a valuable experience too.

Indeed it is very important to train skilled industrial personnel with university and specialized secondary education for the needs of the developing countries. But it is equally important to retain these personnel and make them apply their knowledge to the benefit of their countries. In this respect developing countries are again the loosing partner, while the Western countries, which have enough trained personnel and sufficient training capacities, use free of charge the cream of the scientific and technical intelligentsia of the developing countries. The phenomenon of the brain drain is well known; well known is also the fact of enormous losses of the developing countries as a result of this drain of thousands of their best specialists.

Assessments by UNCTAD indicate that during the 1960s and the beginning of the 1970s approximately 300,000 specialists left developing countries for the Western countries. Some 230 thousand settled in the USA, Canada and the UK. Moreover, 85% of the imigrant specialists in the USA come from developing countries. The total imputed capital value of the brain drain in the developing countries for the 1960s and early 1970s amounted to some 50 billion US dollars. If the benefits forgone by developing countries were added, their loss would be even larger. At the same period the official development assistance from OECD countries to developing countries was 4.6 billion US dollars in 1960 and 6.9 billion US dollars in 1970. These figures clearly lead to the conclusion that the net loss of the developing countries only from the brain drain is hardly covered by the official development assistance from the OECD countries. Is this not a sad fact for the existing international economic order, imposed by the Western countries? The same countries which claim that they do their best to help developing countries. Is it not logical in this case to ask the question who helps whom?

It is very important for the developing countries' governments to take a clear position on the retaining and using of their skilled personnel during the following 15-20 years. It is also necessary for the developed Western countries, as well as some more advanced developing countries and the OPEC countries to co-ordinate their policy on accepting such specialists with the policy of the developing countries, from which the skilled personnel originates, in order to control that outflow of brains. Maybe it is worth considering appropriate legal and economic arrangements, including fair compensation, for the countries who have trained these specialists?

The socialist countries demonstrate in practice in this area too, that they take account of the interests of the developing countries. They neither stimulate, nor tolerate, the brain drain from these countries.

THE SCIENCE AND TECHNOLOGY STRATEGY OF DEVELOPING COUNTRIES FOR THE NEEDS OF THEIR INDUSTRIALIZATION IN THE 1980S AND 1990S

The success of every overall strategy for industrialization to a great extent depends on the chosen science and technology strategy. The developing countries almost entirely depend on the developed countries for acquiring the necessary machines and technology. If these countries now produce about 9-10% of the world industrial output, their share of the expenditures for scientific and technological research is only 3-4%. Of all the expenditures for scientific research in the developed countries, amounting to approximately 150 billion US dollars per year, less than 1% is somehow related to the needs of the developing countries, while 51% belong to the research for military purposes, nuclear research and space research.

The science and technology strategy should cater for solving the basic socio-economic objectives of industrialization. This is an exclusively complex strategic problem, considering that almost all machines and technology methods used in the modern branches of the developing countries' industries are designed and produced in developed countries and are adapted for their conditions. Almost all world patents are registered in the developed countries and most of them are in the hands of the transnational corporations. The share of technologies, designed and developed for the needs of developing countries is still small. Most of the patents used by the developing countries belong to foreigners and the larger part of them is not used in these countries.

The technology strategy and the corresponding instruments of the economic, science and technology policies have to ensure the selection of such technologies in the developing countries that will also take account of the social aspects of development by maintaining a reasonable balance between labour-intensive and capital-intensive technologies. When designing a technology strategy the focal point must be man.

It is hardly justifiable to apply in developing countries at a very large scale technology methods, which do not contribute to employment. The unemployment in these countries is roughly estimated between 300 and 350 million people, i.e. 10 times more than in the developed Western countries. The developing countries have to choose for themselves the most appropriate technologies for their condition - the resource-saving, capital-saving, labour-saving.

The national science and technology strategy should be interrelated with all other strategic aspects of socio-economic development: the dynamics and structure of industrial development; extensive versus intensive factors of development; the availability of raw materials; energy, manpower and finance for this development; import substitution versus export-oriented development; labour-intensive and capital-intensive orientation; prospects for the modern and traditional sectors of industry; policy towards the transnational corporations; degree of integration in the international division of labour; and so on.

A technology strategy can be implemented through comprehensive economic planning policy measures, by a clear science and technology policy in the field of standardization and unification; by a licence and patent system, science and technology information; by the system of diffusion and implementation of new technologies; by consultants services, etc.

The technology strategy and policies should guarantee the acquisition of the most appropriate technologies from abroad, by using all known channels for such transformation as well as new methods and means in compliance with the specific circumstances. Such a strategy should ensure the purchasing of technologies under the best possible terms regardless of all the difficulties nowadays on the international technologies' market. They dictate the conditions for technology transfers: the types of permitted and forbidden technology transfer, the prices, the terms of credit, the royalties, the licence fees, the restricting clauses for the customers, etc.

Apparently the transnational corporations or the other companies in the developed Western countries have been and will be interested mainly in technology developments promising a maximum rate of profit. But very often their criterion for good or bad technologies does not coicide with the criterion and interests of the developing countries.

In view of that, the national technology strategy of developing countries should take the course of gradual step-by-step development of their own science and technology potential, designed to provide a technological basis for industrialization of these countries. This will be a long, steep, complex and extremely complicated process, which would take decades to bear fruits.

Maybe, to start with, one should begin with establishment of a science and technology basis for adaptation of available machines and technologies designed and delivered by developed countries. Appropriate economic incentives may also be needed for promoting such type of research and development activities. The establishment of appropriate systems of science and technology information and for horizontal diffusion of these adaptation technologies should be considered as well.

Meanwhile, one should start elaborating, without any delays, long-term programmes for the development of science at the national level, with its basic profile in the field of natural and social sciences; the gradual establishment of a network of research institutes, development activities, and designers bureaus; the training of scientific research personnel; the setting up of a lasting mechanism of science and technology co-operation both with more advanced developing countries and with developed countries. It is hardly necessary to underline that every developing country should approach these complex problems bearing in mind the specific conditions and its long-term national interests, and displaying the necessary realism.

Most of the developing countries are faced at present with the development and realization of such a science and technology strategy. While trying to tackle this gigantic task, they could use the experience of more advanced developing countries, as well as the experience of some socialist countries, which had to solve, very recently, similar problems to those facing many developing countries.

STRATEGY FOR INDUSTRIALIZATION AND PEACE

Even the most successful strategies and plans for industrialization and restructuring of the international economic relations would have remained only a wishful thinking in the absence of the most important prerequisite, i.e. peace and mutual trust among the nations. The burden of armament is a heavy one not only to the economies of the developed countries (both Western and socialist). It exhausts even to a greater extent the weak economies of the developing countries.

The military expenditures of developing countries in constant 1973 US dollars and 1973 exchange rates amounted to 16.0 billion US dollars in 1960, 44.7 billion US dollars in 1970 and 67.5 billion US dollars in 1978. The imports of major weapons by the developing countries at constant 1975 US dollars absorbed 1.5 billion US dollars in 1960, 2.9 billion US dollars in 1970, and 13.9 billion US dollars in 1979. Some assessments indicate that the annual military expenditures in the world have reached the astronomical figure of 650 billion US dollars, 240 billion of which belong to the USA. Once could easily imagine the growth of the world military expenditures in a few years, if the US Government accomplished its intentions to reach the average annual figure of about 400 billion US dollars for this purpose during the second half of the 1980s.

This armament race leads to non-productive consumption of manpower and material resources, which otherwise could be allocated to peaceful economic development. In many countries the cream of the science and technology intelligentsia is engaged in activities connected with armament, and only "the wastes" and the by-products of the military research find application in industry and other branches of the economy. In many countries the military expenditures contribute considerably to more acute budget deficits, difficulties in the balance-of-payments, increase indebtedness, intensify inflation and the rise in the cost of living.

During the whole history of mankind there has hardly been such a big gap between the level of prosperity which could have been provided for the people by the existing economic and technology potential if put in service to the socio-economic development, and the actual level of well-being on our planet during the second half of the 20th century. The armament race is the main culprit to be blaimed for that discrepancy.

Many developing countries are forced to use more resources for armament than for education and health protection together due to the existance of burning or potential local conflicts and other reasons left intentionally as a heritage by the former colonial empires.

Besides, the armament race imposed by the Western countries, and mainly by the USA, deprives developing countries of additional external financial assistance for acceleration of their socio-economic development. Is it not evident that part of the saved funds, resulting from simultaneous and concerted reduction of the military budgets of the developed Western countries and of the socialist countries, could be allocated for acceleration of the socio-economic progress in the developing countries?

It is known that constructive proposals in this sense have already been presented on several occasions both in the UN and outside the world organization. It is also known that some spheres reject such proposals before studying them thoroughly, labelling them as "propoganda". It is difficult to understand what is wrong with such "propoganda" and particularly what is wrong with the practical implementation of these "propoganda" proposals. It may be worth trying to answer the question - what would developing countries gain from worldwide disarmament?

DISCONTINUITIES WITHIN THE WORKING OF THE INTERNATIONAL INDUSTRIAL SYSTEM by Jacques de Bandt*

INTRODUCTION

The main focus of this paper is on the actual and expected international environment resulting both from the transformations in the working of the international system and from the national policies adopted by the advanced industrial countries as a response to those transformations of the international system.

The international capitalist system is going through a deep structural crisis, which is affecting the existing organization and structure - both the sectoral and locational organization - of world production capacities. While technical progress is changing the available set of production techniques and products, competition between new and old capital is increasing. The strategies of firms and countries, aiming either at dominating the new emerging accumulation processes or at participating in these processes, are changing the relative positions and shares within the new hierarchy which tends to be imposed on the world system. Beside some new constraints, those strategies and policies are the main determining forces of the world "order" which is going to emerge out of the actual crisis.

Still more important socio-economic transformations are likely to emerge, such that, to a large extent, the sectoral and locational configurations of the world system might radically change over the next 15 to 20 years. The pure arithmetics of differential growth rates may already play a decisive role. At the same time, however, available degrees of freedom do seem to remain important, even within the hierarchical structure of the world system, allowing for the definition and adoption of autonomous strategies.

Taking account of these transformations within the working of the international system, it does seem important to:

- try to evaluate the main forces and tendencies at work. A distinction should be made between these forces and tendencies which can be considered as being independent (at least partially and within the chosen time horizon, up to the year 2000) of the policies and strategies of the economic agents, and on the contrary, those tendencies which are essentially dependent on those policies and strategies and on the interplay between them; and

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* Professeur Jacques de Bandt, Directeur de Recherches CNRS, Institut de Recherche en Economie de la Production, Paris X-Nanterre.

- try to identify the existing degrees of freedom, the possible fields for action and the levels at which these degrees of freedom can be exploited, taking account of the necessity at the same time to increase the degrees of self-reliance.

The accent is here on the first of these two points: trying to assess for forces and tendencies at work. Several discontinuities within the working of the international system - which are different aspects of the world crisis and of the likely ways and means of getting out of the crisis - must be successively considered, taking account of the fact that they are closely interrelated. Each of these discontinuities will only be briefly suggested here while the list of discontinuities is by no means exhausting the set of transformations which are to be considered as being significant.

The discontinuities discussed are the following:

- the changing hierarchical structure of the world system;
- the role of the transnational corporations;
- the technological revolution;
- the upcoming information society;
- the energy and raw material situation and prospects;
- the financial system;
- the new protectionism in the developed countries;
- the national adjustment policies; and
- the changing conditions for technological and industrial co-operation.

THE "NEW" GEO-POLITICAL AND ECONOMIC HIERARCHY WITHIN THE WORLD (INDUSTRIAL) SYSTEM

The hierarchical structure of the world economic system is changing. Some tendencies have been at work reducing this hierarchical structure in the past. Was the main tendency before the crisis not that of the catching up among the advanced industrial societies, i.e. the progressive disappearance of the gap between the U.S. and the followers. This is the so-called convergence hypothesis. On the other hand, the growth of the NICs (and of a bunch of other NICs-to-be), while diversifying the relative situations within the Third World, has been replacing the simple North-South split by a continum of intermediate and rapidly changing positions. This is seen by observers as another form of convergence (equalization) on the basis of an extension of the Fordist system to those countries.

Questions are thus raised for the future:

- what is the likelihood of these convergent scenarios or, on the contrary, of new divergence phenomena, which would lead to a new hierarchical structure and to renewed power and unequal exchange relations? and
- what are these new divergence phenomena likely to be; what kind of combination of firms and countries (technology and natural resources) strategies will tend to create these new gaps and inequalities?

Some possible features could be:

- new U.S. dominance or some form of U.S.-Japan dominance (the Pacific scenario), based on a completely renewed technological leadership and an accordingly finalized socio-political setting;
- relative decline of Europe, due to the opposite elements: retarded technological evolution and absence of socio-political consensus (or forms of dualism), together with internal divergence phenomena remaining stronger than common policy approaches;
- to what extent will European countries be able to implement new forms of industrial management or policies and new forms of co-operation, both within Europe and with the Third World countries (Africa, Arab countries, Latin America) introducing a new dimension within the hierarchy of the world system;

- for Eastern Europe, the integration within the world industrial system will be largely depending - besides the exploitation of the natural resource base - on the ability to reduce the technological dependency; and
- the possible scenarios for the developing countries are all conditioned, to a larger or lesser extent, by the various forms of their dependency: technological (a renewed new technological gap or barrier?), financial, commercial; by relative prices of primary products, etc.

The transnational corporations: future role and power

It is of course difficult to make up one's mind with regard to the likely evolution of the role and power of the transnational corporations. Divergent opinions do exist, depending on the assessment of:

- the general economic conditions: to what extent are the crisis conditions more or less favourable for the TNCs:
  - reduced investment and growth opportunities;
  - but new technological opportunities;
  - competition of new and old capital.

- the power relations between TNCs and Governments:
  - the attempt by Governments to regain part of their control: problems of capability but also of relative weight attached to control as against importance of TNCs in international power relations;
  - codes of conduct: progressive introduction of some supranational rules?

- the own capacities of the TNCs:
  - organizational problems of big organizations;
  - superiority for mastering the operational (both of scientific and technological and of industrial and commercial) information systems;
  - capacity of restructuring the composition of their assets.

What is the outcome likely to be? It is either that changing power relations on the basis of which the countries, individually and collectively, are able to reduce their degrees of freedom, such that their organizational decreasing returns affect their performances. Or that, due to their superior international and technological capacities, the TNCs are more that offsetting the countervailing powers at the international level. At the same time, they are retiring more and more from the direct production activities and the management of the work force, and imposing unequal subcontracting relations with the national production bases.

The technological revolution

The pervasive nature of the new technological revolution is becoming more and more evident. This revolution has many different dimensions, but the principal technological transformations do concern, on the one hand, micro-electronics and the stream of induced innovations in the field of informatics and telecommunications and, on the other hand, the new organic and mineral materials (new composite materials chemically transformed minerals, biotechnology). These transformations are interrelated (micro-electronics require new materials, biotechnology require micro-electronics). This has two important implications:

- a new technological or technical system is emerging. Not only are completely new sets of products and equipments beginning to appear, not only are all industrial sectors likely to be affected (the whole of the input-output matrix), but the new technologies are leading to the possibility of completely transformed ways of doing things, i.e. of completely transformed production (and consumption) models; and

- the technological competition and hierarchy will depend on the capability to master not only specific techniques of production but most of the strategic elements of the new technical system, as a whole.

Some of the characteristics of the new production methods are already clear:

- skilled human resources intensive, but with a very strong tendency to displace the human resources from production plants to R and D conception, design of equipment and software. The share of capital goods within the industrial value-added is likely to increase;
- radically changed work conditions;
- more autonomous functioning of the equipment; and
- greater flexibility.

The stakes are such that the rules of the game are changing. Governments in the advanced industrial countries are putting increasing resources in finalized R and D programmes, and technological research co-operation among big firms (largely TNCs is gaining momentum notwithstanding in both case the adherence to competitive market principles.

The upcoming information society

Many aspects of the technological revolution can be viewed in terms of the upcoming information society, which essentially means that the working of the productive system is more and more based on information. This term is being used to indicate a variety of immaterial activites (R+D, design, marketing, training, transfer of technology and know-how, software, etc.), which are largely concerned with information treatment. This information is on the one hand, the scientific and technical information corresponding to the technologies (used and to be) and on the other hand the industrial and commercial information (which concern markets and competition). These activities account within and outside the production firms for an increasing share of value added. This evolution has several implications:

- one is the shift from material capital to non-material factors of production. While part of the information or non-material investments can be transformed into non-material capital, the functioning of the productive system is likely to be dependent more on the skilled human resources (design, use and control of equipment) than on material capital;

- at the same time, information becoming one of the main inputs will also become a predominant source of the value produced and thus of the surpluses generated within the productive system; and

- the technical as against the legal control of the organization of the information systems and in particular of the trans-border flows of information will increasingly become a decisive element of power relations (between firms, between countries and between firms and countries).

The energy and raw materials situation and prospects

The actual demand and supply situation on the world petroleum market by no means reflects the future prospects, which are characterized by increasing (relative and even absolute in a few cases) scarcities of natural resources. The relative prices of energy and of a large number of raw materials are likely to be on a rising trend in the future.

As the petroleum situation has shown, higher relative prices are needed, in order to cover the costs of possible substitutes. But there are strong ceilings: once prices get too high economies and substitutes do reduce consumption. At the same time producers (old and new ones) are increasing production and supply in order to reap actual benefits. More fundamentally, beyond the exploitation of existing technologies, the scientific and technical system is set to work. The effectiveness of the technological solution appears to be considerable indeed.

The whole technological revolution as defined above is changing the relationship between the productive system and the raw material basis: the two main technological trends represent important steps away from the material basis. Even without taking account of the concentration of natural resources in developed countries (U.S. and USSR), energy and natural resources do not seem to be able to play an important redistribution role within the world economy.

The financial system

It is of course impossible not to take account of the financial aspects of the working of the international system, even if these financial aspects are not confined to the industrial system.

The recent history has shown the limits of the existing international system, and as a matter of fact the breakdown of the system, from the standpoint of the requirements which such a system is supposed to meet. The development of a private international financial system, quantitatively important, but by his very nature unstable (and which had to be rescued politically) illustrates this breakdown. Another fundamental aspect is of course the importance of financial flows, the high volatility of exchange rates and the transmission of the high US interest rates throughout the international financial system. These characteristics show the renewed US international dominance at the financial level (but also at the technological level).

The consequences are well known in terms of debts and debt services. The other consequences are by those of the restrictive financial (external and internal) policies imposed by the international community. Those restrictions are leading the countries concerned into vicious circles; the required equilibria are only to be found at much reduced levels of activity and income. These restrictive policies are inducing underutilization of the capital stocks, absence of maintencance and replacement, capital losses, and in some cases, the breakdown of the industrial system. This means destruction of scarce capital resources.

Besides the energy bill and the higher interest rates, the increased debt situation of the developing countries is also a consequence of the biases inherent in the international financial system - the procedures and criteria for the financing of projects to be realized mostly by the TNCs conducive to high capital consumption levels.

To what extent will it be possible to revise the international financial system and within the system as organized to reduce the dependency on the international system and its rules?

The new protectionism in the North

Protectionism has been increasing, more or less openly, in the advanced industrial countries, since the onset of the crisis (beginning of the 1970s). This is of course well known. The developing countries have rightly been complaining against the new protectionism.

This protectionism has of course been introduced in traditional sectors, mostly in the labour-intensive sectors (e.g. textile, clothing, wood, shoes) but also in basic industries (e.g. steel, maritime construction, fibres). The developed countries have themselves been stimulating investments in these sectors in the developing countries, either in order to lower the production costs or in order simply to sell capital goods. Competitive pressures originating from the developing countries have been gaining momentum throughout the 1970s. With the progressive deepening of the crisis these traditional sectors are under increasing pressures, due to the competition of new as against old capital. The new technical system is progressively taking the lead. The social consequences of the difficulties of those traditional sectors are likely to feed systematic strong protectionistic attitudes and reactions.

Of course one solution for these traditional sectors will come from the new technologies: new techniques, based on micro-electronics, will introduce radical changes in the characteristics of some production processes, changing accordingly the competitive position of the sectors concerned, whose comparative disadvantage is likely to disappear. Of course these technical solutions will fundamentally reduce, at the same time, the employment figures in these sectors. This means another argument, during the transition period, for maintaining strong protectionistic barriers.

More fundamentally, the question can be raised whether the actual slowdown of international trade is a short-term phenomenon, linked with the deepening of the crisis and the protectionistic moves of the various countries, or whether this has not to be considered as a more durable tendency.

Many countries feel that their integration within the international system - in terms of exported shares of production or imported shares of consumption - has been going too far: the costs of worldwide multilateral trade with very differentiated (in terms of resources endowment, socio-political setting and price systems) partners are felt to be too high.

Those costs are reduced within regional groupings of less differentiated countries and can be reduced through more contractual exchange procedures.

National adjustment policies

All advanced industrial countries are taking measures in order to aid trade-injured sectors or industries. The meaning of adjustment policies has been changing accordingly.

The adjustment policies asked for by the developing countries, aim at either restoring competitivity or transfering resources into other activities or at taking charge of the trade injuries, in order in both cases to maintain free trade, or at least to reduce the moves against free trades. With the crisis, more and more countries have been obliged to take defensive measures in order to sustain weak sectors.

The whole OCDE approach concerning the positive adjustment policies aims at reorienting the adjustment policies so as not to reject the burden of the adjustment on the partners. These policies are working in the same direction as the market mechanism and are stimulating the production capacities which the market mechanism would bring about.

It is not the place to discuss this approach: beside the fact that it is of course impossible to know what the market mechanisms would bring about and beside the fact that the adjustment policies have always a defensive aspect, these policies mean that the countries are more and more decidedly acting on their productive capacities. Within the framework of these industrial policies, the increasing importance of R and D policies must be viewed as a significant feature. The adjustment policies thus appear to be a new more systematic approach for mastering the industrial system, and for managing it according to the internal socio-economic objectives.

To what extent are countries likely to introduce, within their system of objectives, due consideration of the industrialization requirements of the developing countries. As an objective in itself the chances look dim (but for some like minded countries?). To what extent are the North-South power relations changing so as to impose on the developed countries consideration of these dynamic adjustment requirements of the industrialization of the South?

The changing conditions for technological and industrial co-operation

South-South trade relations, exchanges of capital goods, transfers of technology and direct investments are increasing. The NICs and some others, which have succeeded in developing an industrial base and some autonomous technological capabilities, are able to be more exacting in their exchange relations with the North. While the transfers of technology are quantitatively growing worldwide, competiton among the suppliers of technology is also growing.

All this means that the terms of trade are changing, not just in the sense of relative prices (which are anyway difficult to assess when the exact nature of the obligations and responsibilities is not immediately apparent) but in the sense that the advanced industrial countries are willing to transfer more, in terms of the effective transfer of know-how and industrial mastership, i.e. in terms of non-material assets.

There is a growing awareness within the industrial countries of these changing market conditions. To a certain extent and under certain conditions, interests appear thus to be convergent.

Three main problems are raised. The first concerns the availability of human resources, in order that the co-operation and the transfers of technology may become effective. This implies some level of technological capabilities (to be a receiver, but also for evaluating and negociating the terms of the co-operation), trained people (at various levels), organizational structures in order to play as a partner. Part of this may be included in the co-operation.

The second problem concerns the object of the transfer: which technology is transferred? How appropriate is the technology? In order to answer these questions, evaluation criteria and procedures are needed, in relation with the socio-economic objectives and priorities, within well defined strategies. The third question has to do with the guarantees which exist concerning the effectiveness of the transfer.

To the extent that the terms of trade thus tend to change within the North-South relations, what kind of collective organization and bargaining will make the developing countries better capable of taking advantage of this new situation?

SOME CONSIDERATIONS ON THE LATIN AMERICAN INDUSTRIALIZATION STRATEGY by the Economic Commission for Latin America (ECLA)

INDUSTRIALIZATION SINCE 1950

International Framework

The great cycle of expansion and recession of the central economies.

After the end of the Second World War a cycle of expansion began in the advanced industrialized countries during which the per capita product rose several times faster than in the previous cycle. In the period 1913-1950, it grew at an annual average rate of 1% for Western European countries; but between 1950 and 1970 this rate rose to 4% per year. (Maddison, 1978: Vol. 5, 444).

Unlike previous periods, when unemployment was a recurring threat and rarely fell below 10%, with the post-war prosperity the unemployment rates declined to levels below 4% and in many European countries under 2%. (Maddison, 1978: 479). All of this happened in a framework of a relative stability of the economies and with none of the major fluctuations of the past.

As a result of this rapid growth, changes occurred in the structure of production, which in turn took on considerable importance in the patterns of consumption and lifestyles of the population. These changes included a displacement of manufacturing production towards two major categories: the chemical and petrochemical industry and the metal manufactures and machinery industry, especially that related to the automotive, consumer durables and capital goods branches. In more recent periods, the electronics industry has come to play a preponderant role in economic and social transformation. These changes in the structure of the advanced economies clearly reveal the high technological content of the modern industrial society.

The relatively stable and sustained expansion referred to is highly related to the pragmatic and flexible character of the global policies applied in the industrial centres. Significant in this respect is the growing participation of the State in the economic processes, as demonstrated by the creation of public enterprises, the promotion and development of investment, the regulation of many activities based on their impact on the level of collective life, the application of social welfare policies and, no less important, the encouragement of research and technological development.

This expansive phase, however, was interrupted at the beginning of the 1970s when the industrialized countries entered a severe period of recession and contraction of their economic activity, with its well-known extent and consequences.

The internationalization of the economies.

Closely related to the trends described is the phenomena of the internationalization of the economies, which has now become an extremely relevant characteristic in the early 1980s.

As a result of successive rounds of negotiations among the industrialized countries, there occurred a sizeable tariff reduction on world trade, especially in the trade of manufactures produced by these countries. This made it possible to raise the annual growth rates of exports from the Western European countries from less than 1% in 1913-1950 to 8% in the 1950s and 9% in the 1960s. Similarly, world trade of manufactures grew by 1.7% annually in 1900-1950, and 8.8% in 1950-1075. (ECLA, 1979). This latter trend may be compared with a growth in world production of manufactures of 6.1%, with which the share of trade in the industrial product rose from nearly 14% in 1950 to almost 26% in 1975. Undoubtedly this manufacturing trade growth was of decisive importance for a greater international specialization, which in turn contributed to the high growth rate of productivity in the industrial centres mentioned above.

Of equal or greater importance than the growth in trade - or internationalization through trade - is the presence of transnational corporations, the principal agents of internationalization through production, which represent one of the most powerful instruments on the contemporary scene for the transfer of capital, technology, access to markets, knowledge and experience, patterns of consumption and even lifestyles. In fact, for many advanced countries, the production carried out by their subsidiary companies abroad represents a large proportion of their exports of manufactures, sometimes amounting to double or even quadruple the value of their own exports. Some estimates also indicate that trade within the transnational firms, associated with internationalized industrial production, probably represents about 25% of world trade of manufactures. (Comercio Exterior, 1980: vol.30). For Latin America and the Caribbean, this aspect is especially relevant, as it brings out the fact that more than 50% of the imports of manufacutres by the United States (1977) from the region come from US subsidiary firms. (Calcagno, 1980).

The regional framework

Original objectives and policies of industrialization.

During the period immediately following the war, decided efforts began to be made in Latin America to formulate and rationalize industrialist objectives. For in view of the inefficiency of the pre-crisis development schemes, and especially their different nature in the central countries as compared to the periphery, industrial development strategies were established on the basis of three basic objectives: the absorption of technological progress so as to achieve a more equitable participation in the benefits of development; the need to generate jobs for a population which was growing rapidly and experiencing intense rural-urban migration; and the need to sustain development on the basis of domestic efforts in order to free the economies from their traditional external vulnerability. Moreover it was felt that industrialization should be the engine of social change and modernization.

The fundamental policies were aimed at achieving these objectives, and based on the active presence of the State they stimulated the domestic production of manufactured goods. The instruments used were tariff protection and para-tariffs (quantitative restrictions on imports); subsidies granted to the industrial activity either directly in order to lower prices or indirectly by fixing prices of inputs, tariffs, exchange rates or interest rates; other incentives to private investment, such as tax exemptions, tariff exemptions for imports of capital goods; public investment; training of labour, etc. Frequently, moreover, industrial policy was supported by the operation of specialized government development and/or financial support agencies.

Difficulties and criticisms.

In various sectors, and of course also in the view of ECLA, some difficulties and obstacles were noted which tended to frustrate some of the original expectations. Employment problems grew, and pockets of unemployment and underemployment proliferated in the cities; market structures which were not very competitive were generated, and this led to the formation of industrial monopolies and the production of goods at high cost; marked trends towards the production of all types of goods occured with little selectivity, but exports of manufacutres were not developed sufficiently; a new external trade dependency was created because of the inputs and capital goods which had to be imported, leaving a small margin of compression of imports in order to deal with adverse situations; a new form of structural, technological and social heterogeneity arose within the industrial sectors; possibilities of development in other sectors, particularly agricultural, were limited, etc.

The criticisms, however, are not meant to question the industrialization strategy, but rather to diagnose an insufficiency of development and investment, and the need to introduce some structural corrections in the economic systems, particularly those related to the distribution of income. Moreover, the study of what happened empahsizes the need for medium and long-term planning in order to co-ordinate and balance the development of the various sectors.

New objectives in the 1960s.

On the basis of this critical analysis and on international events such as the Cuban revolution, as well as efforts to set up integration agreements (ALALC, CACM, Andean Group), new central objectives were formulated: redistribution of income and structural reforms of systems of ownership in order to incorporate the low-income masses into the benefits of development and consumption of industrial goods; and inter-American and regional co-operation to encourage a new and massive effort at investment in trade and growth of industrial exports which would diversify the structure of external sales and make it possible to achieve more advanced structures of manufacturing production.

The implementation of these objectives must be sought in the framework of long-term planning in order to ensure the necessary consistency, as well as provide for a systematic evaluation of the degree of progress being made in the accomplishment of the objectives.

Changes in approach.

But the 1960s and the first years of the 1970s became a period of profound political changes in various countries of the region. These may be characterized, on the one hand, by some failures in mesocratic alliances, both in their populist and in their development-based forms, which had given political and institutional support to the industrializing strategies; and, on the other hand, by the mergence of systems which made room for the existence of neo-liberal ideologies which generally did not assign an explicit role to industrialization. Alternatively, the approach of trade opening and liberalization of markets and prices was encouraged. The dynamic role which the State had played in the past was restricted to establishing the general operating rules of the economy and correcting the most flagrant excesses. Although the extreme form of this approach only occurred in a few cases, especially in the Southern Cone, the model was attractive to other countries, partly because its diagnosis answered criticisms which, although they had been expressed before, had not been completely overcome; and also because it included certain values and objectives which coincided with those proposed by traditional power groups. A recent ECLA study on industrializing policies, social order and neo-liberal styles expands on this subject and describes its impact on the process of industrialization.

In addition to the difficulties experienced by Latin American industrialization due to world stagnation, shrinking demand for primary products from the advanced countries there were also problems resulting from the low priority given to industry, lack of protection, paralyzation of investments and the resulting regressive changes in the distribution of income. However, these changes in approach in no way represent a general rule in Latin America, since in many cases industrial efforts persist and the corresponding investments are becoming larger.

Latin American industry and the international scene

Production of manufactures in the period 1950-1980.

In 1950 Latin American industry on the international scene corresponded to under 4% of world production of manufactures, while 80% was concentrated in North America and Western Europe. (ECLA op.cit.) But this panorama experienced some major variations, basically because of the emergence of Japan as an industrial power and the considerable increase in participation of Eastern Europe and the Soviet Union on the one hand, and various regions of the Third World on the other, especially the countries of Southeast Asia. Latin America, for its part, increased its share by over 5% in 1980.

This meant that the region could expand its industrial production at a faster rate than the world average, particularly than that of the advanced industrial centres of the West. Average worldwide growth amounted to 5.7% in the period 1950-1980, while the Latin American rate was 6.7%. (ECLA. E/CEPAL/L.231). It can be said, then, that the evolution of regional industry shows a positive result in the above terms, although it must also be recognized that other relatively backward regions underwent an even more dynamic industrial development.

A closer look at the experience in terms of groups of countries shows that the regional average obscures a variety of national situations. For on the basis of a vast set of factors, such as the scope of domestic markets, levels of development previously reached, forms of opening and insertion in the international economy, character resulting from the presence of transnational corporations, political and institutional conditions and the orientation of the national development strategies and policies, to mention just a few, the intensity of industrialization shows uneven results. Thus, for example, there are countries which are relatively highly dynamic, with annual industrial growth rates higher than 7%. This is the case both in large countries, such as Brazil and Mexico, and in some medium and small countries, including Venezuela, Costa Rica, Ecuador, Honduras and Nicaragua. On the other hand, there are countries which show more modest results, with rates lower than 4% annually, such as Argentina, Chile and Uruguay, in the Southern Cone, as well as Bolivia and Haiti. It is noteworthy that the countries having the oldest industrialization, such as those of the Southern Cone, have had a lower rate of growth that the regional average. (ECLA op.cit.)

Trade of manufactures.

A relevant feature of Latin American industrial growth is the increase in the degree of international competitiveness, which made it possible to raise the share of exports of manufactures of the region from 0.8% to 1.3% of the world total between 1955 and 1975.

Despite the increase in the international competitiveness of Latin America and the Caribbean, the region continues to have a low coefficient of industrial exports in relation to the gross manufacturing product. In 1970 the world average of this coefficient was 21%, with 40% for Western Europe, 30% for Asia (except Japan and Israel), 25% for Japan, 13% for Africa[1/] (excluding South Africa) and North America, 8% for Eastern Europe and the Soviet Union, and only 5% for Latin America and the Caribbean (7% in 1975). This indicator reveals one of the problems that has had to be faced by Latin American Industrialization - its relative lack of ability to penetrate export markets, a fact which should be taken into account in defining new industrial policies. Many countries of the region, however, applied active policies to develop and support the export of manufactures. Occasionally there were very early antecedants, at the beginning of the century, but the concern for this aspect of industrial development arose with some strength only during the 1950s and even more in the 1960s, when fairly dynamic attempts began to bear fruit and ideas began to mature on integration and reciprocal trade among the countries of the region. Furthermore, the persistent protectionism of the centres against manufactures exported from Latin America is proof of the degree of competitiveness achieved by many industries of the region.

[1/] The case of Africa, and partly that of Asia, corresponds to incipient export industries, or rather, some very simple semimanufactures, whose high relative importance is measured against a very small manufacturing sector. In Asia, moreover, the calculation is very much influenced by the countries of the Southeast.

In any case, the progress of Latin American industry is clearly obvious in the reduction of the relative weight of regional imports of industrial goods in the world total, which dropped from 13% in 1955 to 7.2% in 1975.

These two trends, that is, the increase in the amount of industrial exports and the sizeable decrease in the share of the volume of industrial goods imported, tended to improve the relative trade balance of manufactures of Latin America compared with the rest of the world, although with rapidly growing negative balances in absolute terms. At the same time, the extreme concentration of exports on raw materials was reduced considerably. For while in 1955 only about 3% of the total vlaue of exports of the region came from the industrial sector, in 1978 this proportion had risen to nearly 26%. (ECLA: E/CEPAL/L/235 1980). This latter fact of course represents one of the principal successes of the industrialization and export promotion policy, along with the effects of the integration agreements and intra-regional trade.

From the viewpoint of national experiences, the growth of Latin American industrial exports shows great heterogeneity. Most of this expansion was concentrated in the three largest countries, Argentina, Brazil and Mexico. This group of countries increased its share in the region from nearly 64% in 1961 to more than 72% in 1978, consistent with the more advanced industrialization of these countries.

Industrial employment

One of the most interesting aspects of the assessment of industrial growth trends is their effect on employment, since, as mentioned above, one of the original reasons taken into account in encouraging the process of industrialization in Latin America was the dynamic imbalance between the high rate of population expansion (2.8% annually between 1950 and 1980) and the labour absorption capacity of the primary sectors. Studies are often done on the response of industry to the challenge to create new sources of employment. Generally, these analyses consider the magnitude of the different forms of underutilization of labour in

Latin America, which have been estimated at levels of around 20 or 30% of the labour force, in terms of total equivalent unemployment. (PREALC/198).

A closer look at the problem particularly the rising trend in industrial employment, shows far from negligible results. The average annual growth of manufacturing employment in 14 countries of Latin America amounted to 3.4% annually between 1950 and 1980. Excluding Argentina, a country which had a high proportion of industrial employment at the beginning of the period and whose rate of labour absorption was slow, or 0.9% annually. (PREALC, Trabajo occasional/49). An evaluation of these figures should take into account that regional expansion of the labour force was 2.4% per year, so that industry played an active role in absorbing labour, especially if it is measured in relative terms. This role would appear even more impressive if the indirect effect on employment in other sectors - effects which are felt to be very relevant - were calculated.

As in relation to other aspects of the process, there is a notable variety in the behaviour of the countries here as well. Except in the case already mentioned, Argentina, in the other two large countries the growth in industrial employment was very high or around 4.2% annually. In the more recently industrialized medium-sized countries such as Colombia and Venezuela, these rates were 3.4% and 5%, respectively. On the other hand, countries which industrialized early, such as Chile and Uruguay, showed low rates of 1.6% and 0.9% respectively.

The problem of urban employment in Latin America is largely explained by the high rate of expansion of the non-agricultural, economically active population, which amounted to 3.7% or 4.1% annually excluding Argentina, in the period mentioned. This phenomenon reflects the effects of rural-urban migrations, largely motivated by the incentives offered to the rural population of better living conditions in the urban sectors and the higher salaries which may frequently be obtained in these markets. Of course, industrial expansion, with its direct and indirect effects on the growth of job opportunities, has very much contributed to the generation of these incentives.

INDUSTRIALIZATION STRATEGIES AND POLICIES

Various Scenarios

It is important to recognize that an industrialization strategy is not defined solely on the basis of a series of policy instruments and prospective goals. The relative importance of the different instruments, as well as the actors involved and the social and cultural context being developed, form general scenarios which may differ markedly from one another. It is thus appropriate to make a brief reference to the types of scenarios which today contain the ideas about the process of Latin American industrialization, recognizing, of course, that the general nature of the relevant assessments prevents them from being absolutely valid for all cases and situations, especially in a region with such high degrees of heterogeneity among countries and even within them.

The discussion that has taken place in the past decade outlines at least four clearly differentiated scenarios for stimulating development in the Third World countries. One corresponds to neo-liberal ideologies which concede priority to liberalization of the market and financial and trade openness, of the kind that has been attempted in some Latin American countries, especially of the Southern Cone. The second places decided emphasis on exports of manufactures, mainly in the style of some countries of Southeast Asia. The third, fairly diverse scenario, centres on the essential needs of the population and a significant degree of severing of their external connections, frequently individualized in the form of inward or endogeneous development. Finally, the fourth scenario, recommended by the International Development Strategy, 1/ emphasizes North-South co-operation and the establishment of a new international economic order, at the same time granting considerable importance to domestic and collective efforts among developing nations.

The basis of the neo-liberal approach is the reduction or elimination of controls and regulations, as well as indiscriminate external openness,

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1/ The new industrial development strategy (1980s) was considered by the governments of Latin America and the Caribbean at the nineteenth session of ECLA (Montevideo, Uruguay, 4-16 May 1981). (E/CEPAL/G.1161).

both commercial and financial, the reduction in the role of the State and the public apparatus, especially in its investment and entrepreneurial function, and on the absence of sectoral priorities for development, under the assumption that the market alone should determine the comparative advantages to be exploited by the private sector.

This approach is inconsistent with and even disparages attempts at regional integration, postulating that they limit the range of comparative advantages compared with the rest of the world and furthermore tend to transfer the inefficiencies of national protection to the regional level. On the other hand, it concedes partial credit to the ideas being discussed about the new international economic order, in the belief that all growth policies tending to limit the free operation of the international market reduce efficiency.

The appraisal of this scenario should take into consideration, inter alia, that the international market hardly approximates the competitive ideal postulated in the theoretical models. It is important to keep in mind some of the central characteristics of the present international order, such as the deep technological gap between the industrial centres and the peripheral countries, which is manifested in great inequalities in productivity and capacity for saving and investment; the imperfections of the international markets increasingly due to the great importance of transnational corporations around which a large proportion of trade and scientific and technological research centres; the nationalist feeling which continues to govern trade policies, including those of the advanced industrial centres; and many more could be mentioned.

The scenario or approach which concedes a definite priority to exports of manufactures is identified in the debate with the strategy of industrial development which has been adopted in some countries of Southeast Asia, such as the Republic of Korea and Taiwan Province. Undoubtedly, in the area of exports, the respective "models" had considerable success, one of the bases of which was, at least initially, an abundant supply of cheap labour which provided comparative advantages to activities with high labour intensity, where there occurred a rapid growth in productivity. However, the emphasis on "openness" to exports found substantial support in practice in a rapid expansion of the domestic market. Also important was a great effort at saving and investment, initially strengthened by large amounts of external capital, and a series of pragmatic policies designed to protect national production by means of tariffs and subsidies. The State also played an active role in supporting investment, the adaptation of technologies and infrastructure work, and progress towards more advanced industrial structures. (CEPAL Review 15: 1981).

In consideration of these aspects of the development policy of the countries in question, it may be said that these experiences, although some of their objectives coincide, have little to do with those of the Latin American Southern Cone illustrated by the scenario described above. (Foxley, 7: 1982).

The third scenario, centered on the satisfaction of the needs of the population, emphasizes the configuration of a structure of production which concedes priority to the creation of jobs and the access of the poorest groups to essential goods and services. Thus, it defines a guideline for restricting the proliferation of unnecessary expenditures, especially those based on the imitation of foreign formulas of consumption and lifestyles. It is unnecessary to add that this scenario assumes a definitely redistributive character and a central rationale determined by the incorporation of the traditionally excluded social sectors, such as small farmers and urban workers with few skills and little capital, etc. As a result, the external relationship postulated by this scenario is very selective and only fills the role of functionally supporting domestic development efforts, by means of providing basic consumer or capital goods, but adapted to the more autonomous technological standards that are being promoted. In addition, this scenario seeks intra-regional and interregional complementation and co-operation in development, with an emphasis on the collective efforts of the whole domestic population.

The fourth scenario, corresponding to the formulations with respect to the international development strategy, concede preeminence to the restructuring of the international economic order, emphasizing new forms of relationship between the advanced industrial centres and the countries of the periphery. (CEPAL Review, 15: 1981).

Nevertheless, this scenario has certain characteristics relevant to the other scenarios mentioned. Thus, it is important to bear in mind that the various scenarios contain common aspects and coincide in certain areas, so that it is not possible to draw a sharp line between the universes of the respective formulations.

In the international strategy, the objective of industrialization assumes an explicit and decidedly protagonistic role, although this does not mean holding back or neglecting other sectors, especially agriculture. But it does mean making considerable progress in seeking to strengthen all those intersectoral relations which could make growth more dynamic. In particular, it is a question of improving the industrial structures with the aim of resolving their problems of relative backwardness. On the one hand it is the insufficiencies of the intermediate and capital goods producing sectors which sharply limit the dynamic effects of growth and investment. On the other hand, and related to the previous point, there is a need to participate more actively in the more dynamic commercial flows, which are found precisely in the products of the intermediate and capital goods industries. The regional markets themselves have a potential which, through reciprocal trade, could generate a new and sizeable stimulus for the development of such industries, especially with reference to the domestic market countries which have difficulty in achieving an adequate scale.

However, it should be understood that the main stimulus for industrial expansion, except in extreme cases, comes from the domestic markets. The empirical evidence shows this, even in countries characterized by an evolution towards high manufacturing export coefficients. On the one hand, the main component of the growth of demand for industrial goods is the domestic market, resulting both from population and income growth and from the incorporation of backward social sectors and the improvement of intersectoral relations. On the other hand, as this market grows it is making industries which are more demanding in terms of scale more feasible. Development of exports fulfills an additional funtion, in addition to making the domestic markets more dynamic, in that it also provides scale and generates foreign currency to satisfy growing import needs which are largely due to the development of manufacturing itself. For a vigorous industrial growth is not synonymous with a decrease in the import coefficient, as shown by the experience of the advanced centres after the war. Industrialization itself imposes additional needs for imported manufactures. Balance is achieved when greater competitiveness and productive efficiency make it possible to export manufactured goods according to a pattern of intra-sectoral specialization.

Certainly such affirmations should be understood on the basis of the characteristics of each country and in the framework of the regional market, in view of the sometimes severe restrictions due to the small size of national markets. This process of structural improvement cannot be applied, then,the same way to large countries as to small countries with a more incomplete productive structure or with a more limited supply of resources. Consequently, there is a need for the corresponding strategy to be carried out in a framework of regional complementation, harmonization of investments, co-ordination of economic and trade policies, and reciprocal technical assistance.

Similarly, there is a need for international co-operation from the industrial countries, as this would allow for a rational use of the technological progress, entrepreneurial and financial capacities and markets of the latter, according to mutually beneficial systems of exchange.

Need for an industrialist strategy

It seems essential to return to the subject of the industrialization of the Latin American countries and of the periphery in general as a necessary condition of a projected long-term dynamic development.

As stated on numerous occasions, the subject of industrialization was originally brought up in a context - such as that of the post-war - in which the old system of the international division of labour between centre and periphery had lost validity as a mechanism for the growth and technical progress and increases in productivity - which produced a drop in the relative prices of raw material from the peripheral countries but an increase in the income of the productive factors employed in the manufacturing activities of the centres - led to a very unequal distribution of benefits. Moreover, there were the consequences of the Great Depression of the 1930s and the disorganization of the world economy as a result of the Second World War.

After several decades of substantive progress and change, these centre-periphery relations continued to be valid and to condition the forms of international insertion of the Latin American countries. (CEPAL Review, 15: 1981). There still exists and export structure which is highly concentrated on raw material at a time when the composition of imports usually contains a high proportion of manufactures, especially in intermediate and capital goods, in what has been called the asymmetry of trade patterns; there are also still gaps in productivity despite the advances made, and this reveals a continued technological subordination; more recently the process of external indebtedness has intensified as a result of the more liberal evolution of the international capital market following the oil crisis.

However, it cannot be ignored that these centre-periphery relations have experienced some transformations which open up new possibilities for a more autonomous development. Of course, they are the effects of a sustained industrialization over several decades, whose general tendencies were described above. Among these effects is the rise in the levels of per capita income, which has been substantial in various countries; the diversification of the structures of production and exports, allowing for a greater degree of autonomy with respect to external instability. In some countries such as Argentina, Brazil and Mexico, a systematic effort is being aimed at technological adaptation, in order to reduce the effects of extreme subordination to foreign technologies. (Katz: 1981). Significant results have been obtained in the creation of urban employment for a labour force which has grown quickly and has become primarily urban. In brief, as a general rule, there has been an economic, productive and social change in the region which has distanced it, although certainly not completely, from the forms of subordination which characterize the classical scheme of the international division of labour. The focus of this process has been the sustained effort at industrialization.

No less important have been some changes at the international level, such as the diversification of power centres, not only among industrialized countries but also in the periphery, where centres have emerged with a strong capacity to negotiate with the former countries; and transnationalization, referred to at the beginning of this study, which has helped generate new agents and interlocutors. This is a context in which the peripheral countries find a greater number of options for establishing circuits of external relationship and international co-operation, a situation which sould be taken advantage of in order to provide new stimuli to the development processes.

In view of these considerations, the objective of industrialization takes on new meaning. Understood in a broad sense, it means intensifying its social projection, so that it effectively results in the incorporation of broad social groups which are still left out of the benefits of development in the collective task of developing to the maximum the productive potentialities which are involved, *inter alia*, in the working population, in the skills and talents of businessmen, and in the natural resources which certainly abound in the region.

However, this does not mean that the industrial structures must be oriented exclusively towards the satisfying of basic needs, as might be implied by some formulations which emphasize this objective.

In fact, the Latin American industrial sector has reached a high enough level of development to generate an adequate supply of goods to meet the needs of the poorest groups. The problem lies not so much in the production capacity as in generating the purchasing power of these groups.

Although that aspect, which is undoubtedly the most relevant one from the point of view of the social projection of development, must not be neglected, attention must be paid to the diversification of the middle groups and the fact that to a considerable extent they are concentrated in urban areas, the new challenges presented by the intensification of inter-industrial relations, the expansion of the sector producing capital equipment and the need to make the Latin American presence in the world manufactures market more dynamic. The last aspect is especially important in a situation of indebtedness which makes it essential for external income to grow vigorously.

It is precisely in connection with these aspects that the international development strategy puts emphasis on the need to proceed to more intensive stages of industrialization and technological development, while at the same time attempting to ensure that the benefits of development can be used to incorporate those vast sectors which are still excluded owing to unemployment, underemployment and low income levels.

New Industrial Objectives

Overcoming extreme forms of technological and social heterogeneity.

Traditionally it was felt that only intensive industrialization would make it possible to overcome the traditional dualism of those economies with single export. However, the experience of those countries which have taken that route shows that new forms of heterogeneity have emerged, this time within the urban sectors and even within the industrial structures. These forms of heterogeneity include phenomena such as the sharp disparity between big and small businesses or the division of the labour markets between, on the one hand, those strata which, thanks to technological training and apprenticeship, have access to the markets of big businesses and other segments which remain in informal markets and people who work on their own account or who are employed in small firms with very low productivity, immobilized in their low standards of living and spare technological and financial opportunities. Frequently this heterogeneity has been maintained and even strengthened by public policies which, without aiming to do so, in the last analysis benefited the most solvent strata with greater economic capacity. This is the case, for example, of traditional credit policies which made it preferable to allocate resources to those sectors which had access to the financial apparatus or of trade policies which, with the objective of providing incentives for investment, granted tariff or other exemptions to the capital goods imported by the more modern strata.

The result is the new industrial strategies, which are aimed at narrowing those gaps and reducing these forms of heterogeneity, facilitating the incorporation of those sectors which are lagging behind and giving them easier access to the material, financial and technological resources used in production on the basis of which they should be able to raise their levels of productivity and income.

In this respect it is important to draw a distinction: from the point of view of the global development strategy, the role of industry is to provide impetus for the process of modernizing technology and production so that as many people as possible from all the social groups can be incorporated. To these ends it must be socially efficient in that importance must be attached to increased employment and productivity when investments are assessed.

However, the objectives of redistribution as such, which are to avoid certain extreme forms of inequality or the permanency of certain levels of poverty, independently of the production status of the groups concerned, are another thing altogether. Here it is necessary to apply policies and instruments of another kind to surmount such problems using criteria of equity and social betterment which emanate from the body politic. It would be counterproductive to confuse these different situations and to make industrial and production policies responsible for redistribution per se. Although it is recognized that in practice there are cases where such a distinction is ambiguous (for example when import tariffs are applied in an attempt to avoid the consumption of certain non-essential commodities in order to promote greater equality), it should be recognized as a general criterion.

In summary, it may be said that the effort to reduce structural heterogeneity is made by promoting increased employment in the modern sectors of the economy and by developing new opportunities for access to capital resources, technologies, markets and know-how. The next step is to promote all those activities with some potential in terms of the incorporation of the underprivileged social strata into production, making it easier for them to participate in the accumulation of capital, which calls for some regulation of those non-essential consumer goods which, being clearly alien to the lifestyle of the broad masses, magnify social tensions and waste resources which could be put to better use.

Enhancing the structures of production.

Partly because of some bias in protectionist policies but mostly because of technological gaps, the industrial structures of the Latin American countries are characterized by substantial diversification in the range of final consumer goods and a little vertical integration towards the production of intermediate and capital goods. There was a desire to promote real investment, and it was felt that that end was furthered by facilitating the import of inputs and equipment because of the relatively lower price which capital goods commanded. Aside from the fact that the final users were not always benefited (since the concentration of intermediaries and distributors may be such as to enable them to charge monopolistic fees and raise the domestic price), these policies have tended to prevent the manufacture of such goods and to restrict the direct and indirect propulsive effects of their production.

In connection with that question, there has been some discussion of the problem of the size of the markets, which are thought to preclude economies of scale and also of the problem inherent in the high intensity of capital and modern technology which this kind of industry would supposedly require. However, the empirical evidence does not appear to support such assumptions as a rule of thumb since it has been proved that industries manufacturing equipment are sometimes less demanding in terms of scale and are usually not so capital intensive as many industries established in Latin America for the production of goods for consumption or intermediate use. (Comercio exterior, Vol.30, 8: 1980).

There are a number of reasons why it would be a good idea for there to be more vertical integration in the capital goods industries - the opening up of new opportunities for investment; the possibility of giving impetus to a more consistent technological policy since capital goods are known to be the means by which new technologies are incorporated in the production processes thereby making it easier to develop local technological capacity; the creation of opportunities for exporting capital and engineering goods, taking into account that these categories are the most dynamic in trade in manufactures, a fact which is particularly relevant to the intensification of reciprocal trade among developing countries.

Nevertheless, the move towards the intermediate and capital goods industries calls for a different kind of effort in each country depending on local conditions. In the first place, it is not a matter of producing all kinds of goods simply because there is some demand for them. It is essential to strike a balance between the need to expand markets and investment opportunities on the one hand and the need to respect certain criteria of efficiency in production, on the other. Inefficiency always means that resources which might be put to better use are wasted, and this is a particularly serious matter in the case of intermediate and capital goods where the higher costs are passed on to the users who are also producers and will only pass them on again, to the final prices. Thus, a chain of excessively high costs is formed which is obviously harmful not only to the final consumers but also in terms of the possibilities for improving the international competitiveness of local industry, a basic requirement for increased exports. It should also be noted that with regard to the industries with very poorly structured and monopolistic markets, the practice of setting prices on the basis of the production costs plus a margin of profit, means that in addition to there being more inefficiency in production, the amount of the profit obtained by the monopolies will be greater and the real income of the workers will be sacrificed.

Secondly, it is necessary to incorporate the new restrictions which the oil crisis and the energy problem necessitate. In evaluating the different investment options, account should be taken of energy-saving production techniques, in particular those which save on energy from sources which are expected to be weaker or more costly in the future.

Industrialization and promotion of exports

It is essential that industrial exports show dynamic growth not only because such growth may have an impact on the expansion of the final demand for manufactures but also because of the need to import. The experience of those countries with the longest history of industrial development and also that of the highly developed centres show that rapid industrial development is accompanied by intensive imports of manufactures. This happens because of the need for imports and the fact that the growth of imports of manufactures makes it possible to expand the markets and creates contacts with new technologies which are disseminated even by means of consumer goods. Thus, the new patterns of specialization in international trade occur in intra-sectoral rather than intersectoral terms. This explains the rapid growth of trade in maufacutres in recent decades.

However, the enormous difficulties to the attainment of this objective must not be glossed over. They are due first to the recent trends in the international scenario and in particular to the slow economic growth predicted for the advanced countries and the additional restrictions which many of them are placing on imports from developing countries.

On the other hand, from the point of view of the developing countries, there is always a risk of intensifying protectionism indiscriminately without paying attention to its negative effects on exports in that an increase in the cost of imported inputs will affect the competitiveness of export activities.

Finally, consideration should be given to the fact that the activity in question is especially propitious for regional complementarity and the harmonization of investments in that it appears inevitable that only a very substantial increase in reciprocal trade in manufactures will make it possible to reach the export goals which are based on the need for more intensive and independent industrialization. All of this must usually be accompanied by efforts and negotiations undertaken to gain access to the big markets of the advanced countries and to the potential offered by the rest of the Third World in an attempt to achieve mutually beneficial trade patterns, has already been pointed out.

Correction of intra-regional heterogeneity.

The great variety of national situations in terms of the different degrees of development achieved, the unequal sizes of the markets, the differences in the experiences acquired, etc., make it likely that the intensification of the efforts to bring about industrialization will be reflected in wider gaps within the region. It would seem that the bigger countries with a large variety of national resources would be offered opportunities which are out of the question for the small isolated countries with little diversification, most of which are in a situation of great industrial lag. Then there is the danger of replicating centre-peripheral relations at regional scale in that the success of the national strategies of the great majority of the countries, in particular the medium and small countries, depends to a large extent on their complementarity with the strategies of other countries of the region.

Thus, the various regional co-operation arrangements, ranging from the different approaches to commercial integration to complementarity agreements, technical assistance and even the establishment of Latin American multinational enterprises, are particularly relevant. In this regard, it must be borne in mind that, in particular where the small countries are concerned, simple trade arrangements are not sufficient as the experience of the past two decades at least has shown. Nevertheless the external sector of such countries would have to play a relatively more important role than in the larger countries since international trade would make a more advanced form of industrial development possible although, of course, the bases of such development would be different and would include a higher degree of specialization.

The tremendous difficulty in achieving the objective of bringing regional interests into closer harmony should not be passed over in silence. In the political realm strong nationalistic feeling still prevail which, together with the sometimes very marked differences in ideology or styles of government, may stand in the way of the complementarity of development strategies. In the same way, the political instability which has characterized some countries more than others blocks the establishment of common long-term strategies.

In the economic sphere problems may arise which are part of a tradition and due to the fact that some narrow protectionist feelings prevail in entrepreneurial sectors. These feelings may work against regional harmonization when it entails the granting of reciprocal concessions. In the same way it is frequently the case that many business groups exhibit a favourable attitude to foreign investment or to the purchase of foreign technology without making an adequate estimate of the real contribution of these factors to long-term development. There is a tendency to see only the short-term financial benefits but not the way in which the economic structure is bound to be affected in the long term.

In addition to a certain amount of intra-regional association, efforts are needed to bring about international co-operation with other regions in the Third World and also with the industrially advanced centres.

The latter should continue to be a valuable complementary source of resources, technology and markets. However, this complementarity is one of the needs and objectives of the countries of the region themselves, within the framework of strategies drawn independently and sovereignly. In this sense, the harmonization of regional interests should be an important mechanism for strengthening the bargaining power with governments of other regions and with transnational corporations, whose assistance must be recognized as being of very positive value if it is limited to a more equitable distribution of the mutual benefits which may be acquired.

Instrumentation of the policies

General considerations.

First of all a distinction must be drawn between the different types of policies according to the regional space for which they are designed. Thus, it is possible to speak of local policies, which are designed for specific geographical areas of a country; national policies; policies directed at sub-regions or at Latin America as a whole and of more inclusive interregional and international policies. Of course the level at which decisions are most frequently taken is the national level since it is there that the State is fully in control and the instruments it can wield are handled most efficiently.

Nevertheless substantial progress has been made in international co-operation and in the reconciliation of different national interests, and this is likely to continue in the future. To what point will the recession scenario of the international economy, which is in a crisis said to be more than a temporary crisis since it threatens to turn into a fairly prolonged process, favour or prejudice the putting into practice of international co-operation mechanisms? In a scenario of extreme disjointedness, bringing such machinery into operation would probably have a negative effect. On the other hand, if the arguments advanced in the international development strategy found greater adherence among the governments, a paradox would occur in that, precisely because of the recessive and critical state of the international economy and the need to double domestic development efforts, the dialogue among the nations would be more than ever necessary at three levels - interregional, intra-regional and between the developing and the industrially advanced countries. This is particularly true with regard to macro-economic questions which are now extremely urgent, as is the financial problem relating to the high levels of the external debt, the high interest rates and the need for long-term refinancing. But it is also true with regard to questions of critical importance with regard to the medium-term productive and industrial potential of the Latin American countries. The most relevant questions in this connection appear to be those which are related to the steps which need to be taken to expand trade in manufactures, to the problems of technological development and increases in productivity, to the role of the transnational corporations and, in general, to the efforts to achieve integration and the harmonization of interests at regional levels. These issues will necessarily continue to be observed and discussed at international level.

The second general consideration concerning the direction to be given to industrial policies is not unrelated to the one discussed above and concerns the relationship between the State and the market. This is an old question which it would seem has never been finally settled and reappears now and again in different settings.

With regard to opposing ideological aspirations, which, in their extreme manifestations call either for the absolute preeminence of the market and a subordinate State or else for total domination by the State, there is practical evidence that there is really no conflict. Far from being at opposite poles the State and the market are complementary terminals which play different roles but which need each other. This has been proven both in the reconstruction of Europe and in the vigorous expansion of the industrial countries in the 1960s. It is even truer in the case of the Latin American countries and of the developing countries in general. The world is far from being the competitive ideal assumed by orthodox economics. The opportunities available to the economic agents are extremely unequal. Information and knowledge do not flow rapidly enough, and training is required in matters which must now be learned through practice. The developing countries are characterized by great heterogeneity in their economic and social structures which makes it utopian to think that spontaneous market action will be enough to activate development. All this suggests that the State must be active and initiative, especially when there is question of achieving medium and long-term objectives and strategies and of combating organized and concentrated powers, whether at national or international level.

Practically speaking, in the field of industrial development, the growing importance and impact of transnational corporations are becoming increasingly apparent. It does not seem feasible to try to exclude them. They control significant proportions of the world's markets, technologies and financial resources. Their diversification and presence in numerous activities, including the exploitation of natural resources; the production of consumer, intermediate and capital goods; transportation; services; communications, etc., and also their centralization in supranational decision taking units is gradually discrediting the traditional assumptions of the theories of international trade and the optimizing theories behind the allocation of resources. In the face of this transnational power, the developing countries have no other choice but to use the bargaining power of the State. That is the way to safeguard long-term national interest without having to sacrifice the potential represented by those entities.

On the other hand, it is also apparent that there are situations in which the markets have a resource allocation function which they perform through decentralized prices. It would be inefficient and unnecessary for the State to try to be active in all aspects of economic and social life. In actual fact, production activities may be performed by private entrepreneurs using incentive and disincentive schemes established in public policies on the basis of carefully thought-out global or specific objectives and price movements.

Institutionality of industrial policy.

As experience and a theory amply show, the general orientation of economic policy and other local factors such as the coverage of the market and the supply of natural resources are of great importance to industrial output. However, industrialization is also presented as an instrument designed to achieve the most important purposes of development and not as an end in itself. From this point of view, industrialization for development is conceived as being a process which must be deliberately promoted and not as something which happens spontaneously with no inducement other than that of being subjected to outside determining factors which could cause the manufacturing sector to vegetate instead of playing the dynamic role which should be assigned to it.

Thus, general economic policy should provide for more instrumentation specifically designed to promote and support industrialization along the lines suggested above and with the equally specific objectives formulated. This obviously requires a certain amount of specialized institutionality which can respond adequately to the political will which in and of itself is of course not enough.

Entities which correspond to that idea have been and still are present in developed countries which achieved very high and advanced degrees of industrialization. They are also present in other countries which are making significant efforts in this respect. In many countries of Latin America in particular, entities of this type have been the vehicle for the most important industrial achievements and industrialization processes.

Some of the region's experience with this type of entity goes back very far but most of it dates from the 1930s. At present, it may be difficult to find exceptions although of course these entities have frequently been subject to political change which strengthens or weakens them, often as a result of the emphasis which is placed on industrialization as a driving force behind development and the intensity of the industrialization process. It is also true that at this point another feature of the heterogeneity which exists between countries becomes apparent since in some countries the institutional paraphernalia for industrial development is more comprehensive than in others. Generally speaking, in the largest countries the institutional apparatus performs a range of functions which is considerably broader than in the smaller countries. Sometimes integration agreements have taken account of the need to associate countries in various financial, technological or programming aspects of the establishment of industrial promotion entities with a view to resolving both national shortcomings and the problems of harmonization of industrial policy.

This is a matter of considerable importance which should be taken into account in consideration of the future of intra-regional and intra-subregional co-operation and the need for developing or strengthening this kind of entity at national level.

Such entities are used in numerous fields of action, of which even a summary list shows the complexity of industrial policy. In the first place, there are the political bodies - usually executive ministries or departments or subsidiaries of them. There are the industrial planning or programming offices which may be located anywhere in the government; there are entities which perform entrepreneurial functions related to direct investment, which are separate from the public enterprises and are designed or oriented differently depending on the way in which the entrepreneurial structure is viewed or oriented by public, private or foreign agents; there are financial entities; institutions for scientific and technological research; technical assistance bodies and institutions for vocational training, export promotion, etc.

In some Latin American countries, the organizational charts in this connection are fairly comprehensive and complex, but they usually suffer from some defects. Such defects include those related to the hierarchical position of or recognition given to the highest political levels, which may or may not have links with the higher entities or objectives formulated. The inter-agency association needed to ensure well defined objectives, the resources or skilled manpower available and the political changes which frequently determine whether the entities will be strong or weak but also whether advantage is taken of apprenticeship training and manpower experience or whether they are wasted. In each case, careful examination of these and other aspects of the question may make a decisive contribution to the materialization of political will with regard to industrialization.

Exchange policy.

Regardless of whether greater emphasis is put on development from within or development from without, there can be no doubt that trade policies are decisive instruments in the configuration of the industrial structure. Even industrialization strategies followed in domestic markets cannot, in the Latin American situation, escape being heavily influenced by foreign trade for the reasons given above.

There is a large variety of instruments which may be used to change foreign trade, but exchange and tariff policies are the most important.

Of course the exchange policy has an impact which is not confined to the industrial sector alone. Owing to its close relationship with problems of stabilization and management of the balance-of-payments, in some countries which suffer from persistent inflation it is usually determined on the basis of short-term criteria. Very frequently an attempt has been made to break the pattern of spiralling in inflation by freezing the exchange rates, which has resulted in external imbalances sustained by growing indebtedness which sooner or later makes devaluation inevitable, with the usual consequences.

From the point of view of the industrial strategies, the instability which follows devaluation is not desirable. It hinders the projection of medium and long-term trends needed for industrial investment; moreover, in the long run it has not been proved that attempts to stabilize prices by fixing exchange rates for prolonged periods of time have been more successful than those policies wherein it is recognized that the inflationary imbalances are not caused by increases in the exchange rate. In fact the opposite usually happens. Exchange policies with programmed adjustments based on the inflationary trends and the maintenance of an adequate real exchange rate are those which yield the most satisfactory results in terms of the objectives of stabilization and the goals of industrial development and export promotion. Actually, when the government manages to convince the economic agents that the price of the currency will retain a stable real value over the long term, the incentive for or possibility of obtaining gains on short-term speculation disappear. Also those who programme the government's long-term investments are given new incentive.

The freezing of exchange rates in the presence of sharp differences between domestic and foreign interest rates makes financial intermediation based on external indebtedness a lucrative business with rates of return with which industrial projects cannot compete. Sometimes much of that indebtedness was related, directly or indirectly, to the consumption of luxury articles and speculation in real estate to the detriment of savings for real investment. Of course, this phenomenon of indiscriminate external indebtedness has also affected other countries less orthodox in the way in which they manage their monetary and exchange policy, with similar results insofar as the worsening of the external imbalance is concerned.

There is a close relationship between exchange policies and financial policies advocating openness to the exterior. A more abundant flow of external credits, which could in theory be very attractive, has expensive monetary effects domestically which usually destabilize the monetary programmes. Therefore a compensatory mechanism which appeals to those who give high priority to price stabilization and the money supply is that of freezing the exchange rate or slowing its growth; this stimulates more rapid growth of imports and avoids the monetization of credits. However, this is a short-term approach and is harmful for long-term industrial efforts. A policy in keeping with these efforts requires stability in the real, not the nominal, exchange rate and a policy of external indebtedness based on long-term investment and the need to generate a flow of foreign exchange for repaying the debts.

The tariffs and subsidies policy.

Although orthodox theory holds that there are very few reasons which justify the use of tariffs and restrictions on imports, in practice this instrument is universally used, including in the advanced industrial centres. This is justified by the existence of market distortions and defects which keep the production costs from adequately reflecting the true social costs of the resources. Tariffs are an instrument for neutralizing those distortions. In addition, it is recognized that there is a need to protect some incipient activities for which a period of technological apprenticeship is required during which it may not be possible to compete on equal terms with imported goods. Moreover, there are activities which help to generate external activities and to disseminate technical progress to other related activities (benefits which are not adequately reflected in the market prices). Finally, it should not be forgotten that there is a kind of "global inefficiency" of the peripheral economies in comparison with the central economies, which is due to shortfalls in or the absence of a number of factors outside of the enterprises, such as material infrastructure for communications, transport, repair and maintenance services, continuity of supplies, etc., all of which help to raise production costs and deteriorate industrial competitiveness. In summary, tariffs are a tool for modifying the price system to bring it more closely into line with the structure of incentives, on the basis of long-term development goals.

Of course, there is some danger of inefficiency associated with the indiscriminate use of the tariffs policy. In particular, criticism has been elicited in Latin America over the presence of redundant or excessive tariffs which in protecting some activities over and above what is necessary, strengthen monopolistic tendencies. Also, the application of tariffs over an indefinite period of time does not encourage the use of better technologies or promote productivity. Therefore, the determination of the tariff policy and the absolute levels and distribution of exchange rates is not a trivial problem. It calls for a cost-benefit analysis, which must be reviewed periodically in order to keep step with the various industries and stages of development.

Of course, the tariffs policy has certain indirect effects on the economy and on the distribution of income and tax earnings. However, one of its most problematic aspects is its impact on exports. The argument traditionally adduced in this regard is that tariffs protect activities in competition with imports (when the value added is effectively protected, which is not necessarily always the case) but usually leave industrial exports unprotected. This is due to the relative rise in imported inputs by comparison with exports of inputs. One way of counteracting this effect is to apply tariff exemptions to such imports when they are intended for export activities. However, this may have the opposite effect from the one intended in that this kind of exemption discourages the production of such goods. Thus, we speak of a "distoring compensation".

Other options include the application of direct and indirect subsidies to export trade conducted to compensate for certain cost distortions. However, their use is not free of problems either. For one thing, because they give rise to fiscal expenditure or sacrifice they are open to financial criticism and are more vulnerable to political instability. On the other hand, there are international restrictions on the use of such subsidies and even when these restrictions are not applied, there is always the possibility that aggrieved importing countries will have recourse to anti-dumping mechanisms. Nevertheless, in whatever circumstances it may find itself, Latin America should make an effort to defend its right to promote exports of manufactures in policies similar to those in which incipient industries are supported.

More generally speaking, it must be borne in mind that the final purpose of commercial policies, including those relating to exchange rates, tariffs and subsidies, is the balanced development of activities related to production and foreign trade. It means rejecting extreme measures, such as the search for self-sufficiency or the concentration of efforts on increased exports at whatever cost. It is reasonable to think that in certain situations the social costs of increasing industrial exports are excessively high by comparison with those entailed by producing more for the domestic market. Therefore the promotion of exports cannot be considered independently of the strategy of production for the local market.

Aside from tariffs and subsidies, there is a vast range of quantitative and qualitative instruments which tend to modify commercial incentives and disincentives. Many of these are being utilized by the advanced industrial centres as a way of discouraging imports of manufactures without altering the tariffs decided upon in international negotiations. These instruments include the international agreements aimed at restricting the amounts traded or even diplomatic pressure in favour of agreements to restrict exports voluntarily.

With regard to this point, it must be borne in mind that exports of manufactures to the industrialized centres are obstructed by the tariff structures and non-tariff protectionist measures used to defend their traditional industries. Actually, although the United States, the European Economic Community and Japan have reduced the average weighted rate of their nominal tariffs since the Tokyo Round, they maintain a scale of tariffs which is applied to a number of products of importance to Latin American exporters of manufactures. In the case of processed foods, textiles and textile articles and, in general, goods produced by labour intensive industries of concern to Latin America, this scale actually affords much more protection than the nominal tariff levels. Moreover, the establishment of a large variety of non-tariff barriers which have a strong protective effect has had as great or more of an impact as the application of tariffs to imports. Many of these measures have been regulated by codes or agreements of conduct whereas others, such as quantitative restrictions and compensatory rights, have remained outside the GATT negotiations and legislation. (ECLA: 1981).

An important objective of Latin American policy should of course be the removal of such barriers. Similarly, at the level of their domestic policies, the countries can use some administrative procedures to stimulate or discourage imports or exports (licences or advance registration, determination of values used in measurement, negotiated access to preferential credit, quality controls, regulations governing the protection and security of persons, cultural or environmental wealth, etc.).

Because of their potential, policies relating to the purchase of intermediate and capital goods, military and other equipment by the State and public enterprises deserve special attention. In certain cases the volume of such purchases may be substantial and programming them over the medium-term may provide a powerful incentive on the domestic demand side for the promotion of those national industrial activities which are in competition with foreign suppliers.

International negotiations.

The position outlined above - giving a new dimension to the role of the domestic market while at the same time attaching greater importance to regional integration - is not incompatible with ambitions for an international role which will ensure that exports of manufactures to the industrialized centres are sufficiently dynamic. However, as has been pointed out, access to the markets of those countries is hampered by a growing protectionism due to situational and structural reasons. The structural reasons have to do with the relative lag in some branches of their productive sectors which, although they are of only marginal importance to the economies, are able to bring their political and social bargaining power to bear on competition from exports from the periphery.

In addition, while the industrialized countries use all their bargaining power to balance their trade flow among themselves, the combined participation of the countries of Latin America is hardly significant enough to reduce the structural imbalances which have traditionally existed in their trade relations with the centre. Thus, it is clear that there is a need to continue the efforts to put together a common platform of action proposals, both to cope with the increasing protectionism from the centres and to reduce the chronic structural imbalance which exists with respect to them.

Another important factor is the increasing significance of transnational corporations in world trade in manufactures. This has a sharply limiting effect on conventional trade policies which operate through the markets and the price system, in that these corporations and their branches take their economic and technical decisions with an eye to maximizing their profits at world level, which does not necessarily always coincide with local interests. Thus, it is vital to develop enough bargaining power to ensure that the transnational corporations invest and operate in a manner which serves those interests over the long term.

In this connection, within the United Nations an effort has been made to establish a code of conduct for transnational corporations, some of whose main concerns should be noted briefly. With regard to trade, an effort is being made to eliminate restrictive practices and also practices related to the arbitrary setting of transfer costs, in particular between head offices and branches or between branches located in different countries. As for technology, it is felt that the host countries should have quicker access to captive technologies, and it is being recommended that the scientific and technological capacity of the developing countries be used, particularly in connection with the promotion of research activities in which full use is made of local manpower. In the same way, an effort is being made to see that transnational corporations provide information concerning their products (in particular where the preservation of the health and security of the population is concerned and in matters related to the quality of the environment), structure, operations and policies.

Since the transnational corporations control much of the market in manufactures, it is vital to formulate concrete criteria so that the negotiations with those corporations will result in making the exports of Latin American manufactures more dynamic with the highest possible value-added locally. This can be achieved, for example, in the case of corporations which have a large share in the international markets for certain industrial commodities and are willing to open those markets to products manufactured regionally.

With respect to access to technology, a global policy whose central objective is the achievement of greater independence and capacity in respect of choice is of course necessary. It is neither feasible nor desirable to postulate technological self-sufficiency since the Latin American countries can benefit greatly from the available store of technology.

There is, however, a great deal of latitude for moving ahead towards more independence with regard to long-term development objectives. It is indispensable to create a Latin American capacity for selecting and adopting technologies. However, the truth is that the supply of technologies is still controlled to a very large extent by transnational corporations from a few developed centres. These corporations have practices which do not contribute to the development of more independent capacity, such as the sale of turnkey plants of licences with restrictions which make it necessary to purchase equipment and inputs.

Technological policy.

In a very broad sense, technological policy acquires overwhelming importance, especially when viewed from the point of view of the need to overcome the asymmetry of the commercial patterns which now prevail. This is because the structural gap related to the lag in the production of intermediate and capital goods is to a large extent due to the technological gap between the developing countries and the advanced centres. As long as this commercial structure is maintained, the impediments to more dynamic industrialization will persist.

For one thing, the acceleration of industrial growth causes a rapid expansion of imports of manufactures because of the high elasticity of the demand for these goods by comparison with the needs for inputs which are generated. As long as exports of primary commodities do not expand as rapidly, there will inevitably be a structural tendency towards external imbalance. Moreover, the high imported content of the indirect demand, which originates in industrial growth, tends to cause the multiplier effects to be filetered out to the exterior, having a debilitating effect on the growth of the local markets. Thus, there is a close link between the loss of industrial dynamism and the asymmetry which is still to be found in the structure of trade. However, at bottom, the elimination of this asymmetry calls for basic changes in the level of productivity and for a radical reorientation of the trade flows.

We have already spoken of the need to expand the value of reciprocal trade in industrial goods in Latin America significantly. This is one of the conditions for the achievement of the objectives which have been described. Another of these conditions is the adoption of a far-reaching strategy which will set in motion a process wherein the present technological gaps, which are not only very large but are continuing to grow, can be gradually closed.

Technological development means that resources must be allocated for research closely related to the goals of industrial development, but it also affects the patterns of consumption and the life styles which can be touched by it.

There is a need for a brief examination of some matters which come to mind in connection with the adoption of technological development policies. This problem has a few aspects which are not always duly recognized.

The Vienna Plan of Action formulated during the United Nations Conference on Science and Technology for Development (Vienna, August 1979) and its subsequent capacity of the developing countries and the restructuring of the present system of international scientific and technological relations as main objectives of the international community.

With regard to the latter, there can be no doubt that the adequate selection and acquisition of foreign technology is of enormous importance for the region. In this connection, it is enough to recall that nearly 95% of the world expenditure on research and development occurs in a few advanced industrial centres. It would be a mistake not to recognize this as a fact and to try to do without this flow of innovation. However, in the present phase there is already a need to examine and set policies in connection with such questions as appropriate technology; the prices paid for acquired technology; the impact of technology on patterns of consumption and styles of development and the restrictions frequently provided for in purchase contracts with dealers in technology, which usually refer to, inter alia, the obligatory acquisition of equipment and machinery, technical services, intermediate goods and other items of a similar nature customarily provided by the sellers themselves or their subsidiaries.

The international technology markets are structured very poorly; thus, the service purchased does not have a comprehensive price but rather there is a margin within which a not inconsiderable proportion are the result of oligopolistic prices set by the sellers. Thus, the prices actually paid depend to a considerable degree on the bargaining power of the contracting parties, an arrangement which of course in the majority of cases tends to favour the sellers or in other words the transnational corporations.

With respect to this phase of the problem, the main aim of the policies should be to improve the supply and demand conditions of technology. On the supply side there is a need to explore optional markets, both among the transnational corporations themselves and in institutional centres, at the governmental, private or university level, taking advantage of the proliferation of industrial poles in the international scenario of recent decades. The more options there are in the supply market, the greater will be the possibilities for more independent negotiation. In this connection, attention should be drawn to the possibilities offered by the small and medium-sized enterprises of the developed countries since some of their characteristics make many of them especially suitable for the transfer of technology to production units in the developing world. Similarly, the exchange of experience and technological innovation among developing countries and among the enterprises which they themselves support (a subject on which valuable experience has already been acquired in Latin America) may also yield big benefits.

However, there can be no doubt that the biggest responsibility in the definition of a policy for the selection and acquisition of technology is to strengthen the bargaining capacity of the peripheral countries as the origin of the demand. In this connection it is indispensable to organize an institutional framework made up of the State, the universities, those local private enterprises with enough incentive to participate in such an effort and regional co-operation and development bodies. Basically it is a matter of achieving a two-fold objective - and endogeneous capacity for knowing, selecting and discriminating between the different technological options available and a capacity for co-ordinating purchases of technologies through public or regional bodies.

The development of an organized capacity for technological know-how is fundamental for discriminating effectively in purchasing. In the last analysis, it is impossible to negotiate the transfer of knowledge and information without this minimum capacity for knowing what is available. At this point a vicious circle is set up which must be broken. In this connection the possibility of establishing multinational Latin American corporations made up of mixed, public and private bodies, which would help to acquire experience in other strategical areas, might be of interest.

The foregoing does not imply the postponement of, much less a failure to recognize, what is considered to be an essential component of technological policy, i.e., the strengthening of the endogenous capacity of the countries of the region either to generate scientific and technological know-how for application to their own development or to adapt or improve technology from the industrial countries. All this relates to the creativity which must necessarily be applied to industrial development within the framework of the peculiar characteristics and circumstances of the region and the countries in it.

In this respect, there is empirical evidence that the biggest countries in the region are making a significant effort in terms of resources allocated to technological research and development.1/ It has been discovered that these efforts are only partially aimed at reducing production costs, which is the most common reason for making innovations. Other relevant goals are the expansion and improvement of the installed capacity by designing plants which break bottlenecks; the introduction of improvements in the quality or design of products or their adoption to specific conditions; the use of raw materials and other local products; the adaptation of scales, etc. Experience shows

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1/ The significane of this effort must be seen in terms of the rest of the region; but in relation with other geographical areas, Latin America is still far behind with regard to the priority assigned to the allocation of resources for technological research.

that many of these efforts are frequently made by the very corporations which import foreign technology and decide on the advisability of introducing changes using their own technical equipment. In this respect, attention should also be drawn to the activities of the technological research centres and institutes in the region.

This information shows that local technological activity, rather than replacing the importation of technology, often serves as a link between local and foreign technology, i.e., the purchase of foreign technology opens the way to or creates a potential demand for local technological activity to be used in adapting the foreign technology to local conditions. The actual response depends of course on the availability of qualified manpower, the institutions needed to set up the technical equipment, financial resources which can be allocated to develop the efforts required and, finally, the granting of priority to this objective in industrial and development policies.

This is a field which is bursting with possibilities in terms of regional co-operation and complementarity since it has not been the object of much exploration and only a few countries have made systematic efforts in connection with it, and those efforts are still scattered or still at an incipient stage. In this respect, consideration should be given to the fact that such initiatives have frequently resulted in exports of manufactures as well as of adapted plants and equipment, technical assistance services and even direct intra-regional investments by the enterprises which have made such efforts. It should be emphasized, however, that, in accordance with the objectives of regional co-operation, the activities in question should be performed in such a way as to keep centre-periphery relationships based on subordination from developing within the region between the industrially more backward countries and countries which are ahead of them in the indurstrialization process.

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INDUSTRIALIZATION AND INDUSTRIAL POLICIES AND STRATEGIES IN THE ECWA REGION by the Economic Commission for Western Asia, Joint ECWA/UNIDO Industry Division

MANUFACTURING INDUSTRY IN THE ECWA REGION

The present section gives a brief account of the main features of industrial development in the countries of ECWA region in the light of the evolution of manufacturing activities during the last decade and the existing structural features of this sector.

Growth of manufacturing and its contribution to income

Growth performance of the Western Asia region as a whole during the 1970s has been well above the rate achieved in most developing countries. The combined gross domestic product of the region grew at an annual average rate of around 30% (at current prices). In real terms, it is estimated that the rate of income growth was of the order of 12% annually. This performance, however, concealed many weaknesses inherent in the economies of the region which manifested itself in acute economic imbalances, wide disparities in the level of living among the various countries and within each country, an increased dependence on the outside world, a galoping inflation and a consumption pattern increasingly geared towards imports.

The economic imbalances were further aggravated by the sudden increases in oil revenue after 1973, coupled with a poor performance of the main commodity producing sectors, namely agriculture and manufacturing. Thus, the relative contribution of manufacturing to regional GDP has in recent years dropped to half its level in the early 1970s, which was around 12%. This decline was shared by most ECWA countries. On the other hand, the relative importance of agriculture dropped to one third its level whereas mining and services had increased substantially their share in total output, particularly in the oil producing countries.

Under the circumstances, it would not be exaggerated to say that no significant progress could be achieved in eliminating the existing economic imbalances unless serious efforts are deployed to restructure the economies of the region in favour of the commodity producing sectors and in particular manufacturing.

The growth of the manufacturing sector, which at current prices, averaged 20% annually during the 1970s, has also revealed great disparities in the level of development between different country groupings (oil, semi-oil, and non-oil countries). This disparity had started early in the decade, and if allowed to continue into the 1980s, it would inevitably lead to basic changes in the regional structure and location of manufacturing activities in favour of oil economies. It would also lead to a new regional division of labour whereby the bulk of the industrialization would be centered in the less populated areas of the region. The type and nature of such pattern of industrialization would constitute a stumbling block for an integrated industrial development.

It is worth noting, in this connection, that the region has witnessed an overall economic slowdown towards the end of the decade with regional growth rates of both overall and manufacturing activities being cut by half reaching in the case of the latter an annual rate of less than 10%. This is mainly attributable to the unstable political atmosphere which started developing throughout the region early in 1976 following the unusually prosperous period of the early 1970s and which was prompted by 1973 oil prices increases. This slowdown has reduced the relative contribution of manufacturing to GDP in the region as a whole (to half its level of 1970). Furthermore, the contribution of manufacturing to the increase in total income did not exceed 5% during the decade.

The components of these developments, differ from one country groupings to another. In oil economies, where oil activities generally set the pace for overall economic performance, the slowdown was relatively mild. In the non-oil economies, however, the slowdown took the shape of a grave recession. Thus, the non-oil economies' manufacturing income contribution to GDP dropped from around 15% early in the 1970s to less than 10% in recent years. Lebanon and Syria, which both accounted initially for approximately 30% of regional manufacturing income were mainly responsible for the downward trend.

In Iraq, manufacturing activity has accelerated its pace of development by increasing its growth rates to 26.2% during the second half of the decade compared to 16.8% during the whole period of the 1970s. This performance is achieved inspite of the slowdown witnessed by the economy in general during the latter half of the decade and was the result of earlier large investment in the sector that began to mature after 1974 and started to exert its impact. Nevertheless, this good performance has only slightly improved the relative importance of the sector representing less than 9% of GDP towards the end of the decade. This was mainly due to the exceptional performance of the construction sector during the period, as a result of the intensive efforts being directed towards the improvement of the infrastructure of the economy in recent years.

It is worth noting, that the non-oil countries, which represent approximately half of the population of the region, and most of the countries of which (Jordan, Lebanon and Syria) are traditionally known to be relatively more advanced in manufacturing among ECWA countries, have been witnessing continued decline in their relative importance in terms of regional manufacturing output which has averaged in recent years only 21%. On the other hand, oil economies which barely represent one quarter of the region's population, have seen their share in terms of manufacturing income, increasing to 58% as against 45% early in the decade. It is important to note here that these developments were made possible because of carbohydrate-based industries which accounted alone for some 80% of manufacturing income.

In terms of per capita manufacturing income, it is oberved that the relative contribution of the manufacturing sector to the increase in urban per capita has increased at an annual rate of less than 1% during the decade as against an annual urban population growth rate of more than 5%. This fact is of particular significance since demand for manufactured goods in most of these countries is largely conditioned by urban consumption patterns. In other words, manufacturing activity accounts for only a small part in generating urban income increases whereas the non-commodity sectors mainly services play the major role in determining urban consumption levels. To illustrate further, information relating to the supply of manufactured products and available for a number of ECWA countries indicates that the combined contribution of domestic manufacturing output to the increase in the availability of manufactured goods did not exceed 35% throughout the decade. This percentage would have undoubtedly been much lower if the output of oil based industries (oil refining and products) were excluded.

On the other hand and despite the increases achieved in the combined industrial output of these countries which grew at an annual rate of more than 20%, the ability of the manufacturing sector to satisfy domestic needs did not exceed 42% in recent years, compared to 57% in 1970.

This situation is an outcome of the fact that manufacturing activity other than oil based industries, has been originally established as a substitute for imports in most ECWA countries, its development, therefore, has been dependent on the consumption pattern of the domestic market. The sudden increase in income after 1973 in the oil economies has found its way to the rest of the region through direct government donations and remittances of workers. The effect of this new source of income, which did not originate mainly in the commodity producing sectors, has affected the consumers taste to the advantage of imported manufactured products. Domestic industry was thus faced on the one hand by a more sophisticated pattern of consumption which it could hardly satisfy; and on the other hand with rising production costs due to the openness of the region to world inflation and the high cost structure of factors of production induced by the sudden increase in income after the 1973 oil boom.

Structure of manufacturing output

A review of the structure of manufacturing output in the region reveals its predominant orientation towards the production of consumer goods (mainly food, beverages, and tobacco, and textiles and wearing apparels), and intermediate goods (mainly petrochemical industries, non-metallic mineral products and to some extent basic metal industries). The picture that emerged consisted of a large variety of scattered enterprises with no linkages between them and very little complementarity in their production. More complexed and integrated industrial activities in the field of capital goods and engineering industries have not been given due attention. While the lack of resources and the limitation of the market at the country level may have prevented the establishment of such industries, the absence of a regional outlook to the problem of industrialization has certainly been a major factor for their absence. As a matter of fact, the countries of the region have not drawn yet clear outlines for an integrated industrial strategy, based on an overall general development strategy for the region. The approach to industrialization has so far been a piece-meal one with very little or no co-ordination between the production plans of the various countries.

Available statistics on structures of manufacturing sectors of countries of the region reflected wide variations among countries depending on their level of development. To a large extent, countries belonging to the same groupings share similar structures. Thus, in the non-oil economies, food, beverages and tobacco; clothing and textiles industries, together occupy major positions, and have been gaining more importance since early in the decade reaching around 75% of total manufacturing income in recent years as compared to 54% in 1970.

Chemical industries, on the other hand, including petroleum refining and petrochemical products constituted the main activity in most oil economies representing, on the average, 80% of value added in manufacturing over the decade. This was due to the impact of higher oil prices after 1973 on the value of refined oil which constituted the main activity in the manufacturing sector in those countries.

Non-metallic mineral products, composed mainly of cement and building materials, have on the average, increased their contribution to manufacturing income to all countries except in the case of Iraq and Saudi Arabia. This increase came in fact as a result of a surge for the development of this branch to cope with the vast increase in demand for construction due to the intensive efforts directed towards the development of the infrastructure of the economy. Nevertheless, this branch of activity continued at the regional level to represent less than 7% of manufacturing value added over the decade.

As for basic metal industries and engineering industries, including manufacturing of machines, tools, and equipment, the relative contribution of these activities to MVA has widely fluctuated ranging however at the regional level between 2% and 4%. It should be noted that this activity includes aluminium smelting and extrusion, the production of which is mainly for export markets, (e.g. Bahrain). Generally speaking, the engineering industries in the region are still at their initial production level and consist mainly of engineering services and repairs and metal manufacturing, catering primarily for the building and construction sector.

The limited production basis and the fragmented nature of the industrial set-up combined with the lack of complementarity in production has reflected itself on the pattern of imports and exports of manufactured goods. Thus a high proportion of the goods required for production are being supplied by imports mainly from developed markets. Available data indicate that despite fluctuations, the relative share of imports of manufactured intermediate products to toal manufacturing imports is gaining increasing importance approaching a percentage contribution of 50% at the regional level. When compared with the level of manufacturing output, information available on selected ECWA countries indicates that intermediate imports of manufactured goods has recently accounted for 76% of total manufacturing output in the countries concerned collectively, compared to 41% in 1971. This increasing dependence on external markets for industrial inputs becomes more critical if other imported inputs such as unprocessed materials and machinery and equipment for industrial use are included.

It is worth noting in this respect that the value of imports of manufactured intermediate products (excluding machinery and equipment) for the whole region has, over the decade, increased more than 12 times that of 1971. Thus, manufacturing activity in the ECWA region is characterized by a low degree of processing which on the one hand limits the value added generated internally and increases, on the other hand, the production costs. In other words, the larger part of the benefits from the industrialization process is not accruing to the region.

As for the exports of manufactured products, they have recently constituted around 9% of the region's total exports as compared with 14% earlier in the decade and they continued to be concentrated mainly in chemicals and petroleum products which accounted for more than half the total. It should be noted in this connection that there are strong indications of the inclusion of a large volume of re-exports statistics of manufactured products of some countries. Should it be possible to separate these data from the export figures, the percentage of the region's manufactured exports to total exports would certainly be lower than 9%.

Hence it may be an exaggeration to assert that in its present state, it is becoming increasingly difficult for ECWA manufacturing industry to penetrate markets outside the region, even those of other developing countries which can be considered the natural markets for many of its products. Even more alarming is the fact that manufacturing exports have lost their traditional markets within the ECWA region itself due to competition from countries in Southeast Asia, where a substantial part of the output is produced under trademarks of multinational corporations. Future prospects in this respect are no more encouraging, especially as ECWA manufacturing, which is basically oriented to domestic needs, is, as mentioned earlier, no longer capable of keeping up with modern patterns of consumption with their strong orientation towards imported goods. If this phenomenon is examined more closely, one finds that it amounts to constant outflow of the benefits of domestic production and a growing increase in expenditure that could have been instrumental, if properly channelled in restructuring output and hence, accelerate manufacturing development.

INDUSTRIAL POLICY AND ITS MAIN INSTRUMENTS

The present characteristics of industry in the ECWA region as well as its development over the last two decades has been conditioned by a number of factors which affected its rate and pattern of growth. Prominent among these factors is the influence which the increase in oil revenues has had on the pattern of investment consumption and the structure of prices and cost of factors of production. However, it is obvious that industrial development has also been considerably influenced by various actions taken by public bodies, either as a consequence of provisions and measures deliberately adopted to stimulate and direct the industrialization process, or by steps taken as part of the economic policy as a whole, the effect of which has also been felt by the manufacturing sector. Thus, it is not easy to always identify, among the multiplicity of measures taken, those that may be considered as constituting an industrial policy, properly speaking, which can be used as a yardstock to measure in quantitative terms its effectiveness on the pace of industrial development.

Generally speaking, one can define the elements of industrial policy in the ECWA region as those measures and steps taken by public authorities and aiming at either protecting domestic industry from foreign competition or controlling and encouraging the pace and pattern of industrial development, including direct state promotion. The above definition leaves out of account important elements of general economic policy falling within the purview of state action and which may have exerted a strong influence on industrial development. This applies, for example, to government action aiming at improving infrastructure and basic social capital.

Protection of industry and its main instruments

It is generally recognized that manufacturing activity in the ECWA region has developed originally, as an import substituting activity, in an atmosphere of protection.

Generally speaking, tariff protection as a whole, has constituted the mainstay of protectionism in countries of the ECWA region. Therefore, it would not be exaggerated to say that over the last two decades and for at least two countries namely, Iraq and Syria, the pattern of domestic activity in manufacturing was largely determined by the import policy. Quantitative restrictions have also constituted an important instrument of this policy. Through direct controls of imports, protection was extended to those branches of manufacturing which were falling within the countries' development objectives. In many instances, total protection was given by placing a complete ban on importation of competing goods. By eliminating market forces, such high levels of protection had paved the way to monpolistic practices, inefficiencies and misallocations of resources. It is worth noting in this connection, that the real degree of protection is not determined by the General Tariff level, but also by the differences in the rates applied to particular products and those applying to intermediate imported inputs needed for the production process. It is in fact tha tariff structure that allows the tariff instrument not only to act as a general stimulus, but also to affect the direction taken by industrial development.

It should be noted that the nominal tariff do not alone reflect the protection afforded to industry as in most of ECWA countries other protection measures are actually practiced. These measures include quantitative and administrative import control that ranged from a complete ban on import to import quotas - a practice widely used in Iraq and Syria, and to a lesser extent in Jordan. In comparison, Lebanon has used import control on a limited scale.

Tariff rates are generally the highest on consumer goods while much lower rates are applied on capital and intermediate goods as well as raw materials. This structure of tariff is mainly a reflection of the importance attached to import substitution as an immediate requirement of industrialization although, as was the case in many instances, with considerable sacrifice of productive efficiency, costs, prices and a rational industrial base. The result was an extensive rather than intensive type of industrial growth. In other words, the tariff structure has been favouring production lines related to the demand for final consumer goods, even though only the finally processing stages were covered. This is obvious since a tariff on a certain commodity tends to protect the domestic industry producing that commodity, but in doing so it acts against the industries producing the whole range of intermediate inputs and machinery. Furthermore, by drawing resources into protected industries, they have had a negative effect on other industries receiving less protection. Moreover, the fact that such protectionist policy has most of the time maintained an absolute level of protection on a large scale, without any pressure on the industrial branches already established to effect a steady imporvement in their productivity and efficiency, has had adverse consequences for costs and prices of manufactured goods in the countries of the region.

In summary, the tariff policy is characterized by: a tariff structure which has been dealt with on a case-by-case basis reflecting historical incidents with apparently no coherent industrialization policy; the tariff structure by and large has been geared primarily towards tax revenue objectives and only secondarily to protection. Protected industry has been granted an average nominal tariff ranging from 18% (Lebanon) to 23% (Syria) which is by no means a protective level structure for a developing country, especially when it is not combined with other effective protection measures. This is particularly true in the case of Lebanon; granting protection has not been linked to clearly defined industrialization objectives.

This approach to protectionism has created conditions which made it difficult to combine import substitution with the introduction and expansion of exports of manufactures at any substantial scale. Industry in each country as mentioned earlier, has witnessed an extensive type of growth covering practically a large range of manufactures in a given category, and in most cases without specialization in particular lines within a given category based on the country's endowments and comparative advantage. The absence of such specialization has deprived the region taken as a whole from laying the foundation of a more self-supporting type of industrialization and has hampered the industrial integration of ECWA countries.

The foregoing review of the main characteristics of the protectionist system that has been applied in the countries of the ECWA region underlines the need to make it a flexible instrument of protection. Thus, tariff rates must be based on practical criteria with a view to acting as an effective stimulus to industrialization without entailing unfortunate consequences.

In brief, what might be regarded as protectionist policy is really the result of a mixture of measures and instruments which has varied according to the country and to the period in question. These measures were governed both by strictly protectionist aim and by the need in a number of countries to obtain more revenues or to improve the balance of payments. In any case, whatever the real influence of the protectionist aim may have been, the general climate created resulted in a high degree of protection for domestic industry.

General measures of industrial promotion

Instruments of general economic policy, relating to taxation as well as certain features of monetary and credit policy have also been used, in varying degrees, as indirect incentives for industrial promotion. In some countries, namely, Iraq, Jordan, Lebanon, Kuwait, Saudi Arabia and Syria, this has taken the form of an industrial development legislation. In most countries, however, there has been a collection of miscellaneous provision, either of a general nature such as income tax exemption, tax rebates, credit incentives, etc., or relating to measures, aiming at regulating and encouraging investment in industry.

How far these provisions and measures have been effective in stimulating industrial development in the ECWA region can best be appreciated in the light of three objectives. The first, to favour industry over other sectors in such a way as to encourage the channelling of resources into manufacturing. Secondly, to influence certain lines of production within the industrial sector. Thirdly, to encourage a certain type of behaviour on the part of existing enterprises facilitating expansion and raising efficiency and productivity.

On examining the various instruments of industrial policy used, it is not difficult to infer that except for some measures designed to facilitate credit operations of the industrial sector; all other instruments do not, as a rule, imply preferential treatment for the industrial sector as a whole vis-à-vis other sectors of economic activity. As far as taxation is concerned, the fact that in most countries of the region, a very high proportion of government revenues accrue either from oil royalties or from foreign trade duties and charges and from other indirect taxes means that the incidence of taxation on the profits of industrial enterprises is rather light than otherwise. Available figures indicate that for the period 1968-1977, taxes on income and profit have ranged between 10 and 12% of total government revenues, on the average for Lebanon, Syria, Jordan, and Iraq, (oil revenues being excluded for the latter.) This ratio is much lower in the case of the other oil producing countries in the region. This situation limits the effect of incentives that would be provided through taxation.

With respect to incentives aiming at influencing certain branches of industry, this objective has been largely overlooked. While there is no doubt about the intention to use selective incentives in order to stimulate particular industries, the criteria determining which industry is to benefit from such incentives was never spelt out in detail. Thus, broad definitions, such as "in line with the country's development objectives"; "not competing with the public sector"; "using domestic raw materials"; "substituting for imports"; or "have a potential for export", were the guidelines on the basis of which industries qualified for the provisions of industrial policy.

The application of the principle of selectiveness could have undoubtedly exerted a significant influence on the orientation and structure of industrial development, if the type of activities eligible for the benefits of the incentives were defined with precision instead of being formulated in general terms. The same thing can be said with respect to the efficiency of these incentives in influencing the geographical distribution of industrial activities. Most countries of the region have set up "industrial decentralization" as a new desirable objective. The measures taken to favour specific location considered of differential interest rates policy on industrial loans and extended period of customs duties exemptions in the case of Iraq and additional tax incentives in the case of Lebanon. The other countries reviewed resorted to the provision of industrial estates facility as an encouragement measure.

As far as raising the efficiency and productivity of enterprises is concerned, the instruments under discussion were merely geared towards new developments rather than existing industries. They have helped widening the range of manufacturing activity either through stimulating expansion or encouraging new developments. Very little attention was devoted in the various legislations to the problem of efficiency. This, inspite of the fact that most countries have set as an objective to raise productivity levels in their existing industries.

Lastly, it must be pointed out that in view of the dispersed sources from which the various instruments and measures of industrial policy adopted in this study, were obtained, it was not possible to depict clearly one of the unfavourable features characterizing this policy in many of the countries under review, namely, the lack of continuity caused by frequent changes in the nature and scope of the provisions established. The result is an atmosphere of uncertainty which quite often has weakened the anticipated effects of the incentives offered.

Direct State promotion

In addition to the general incentives deriving from protectionist policy and from other measures designed to stimulate and encourage industry, direct State promotion emerges as a basic instrument of industrial policy in the majority of ECWA countries.

In the following paragraphs, a brief review is given in broad outlines for the activities carried out in this field in some countries of the region, more for illustrative purposes, than with any intention of presenting a complete and systematic picture.

The most important public bodies and instruments concerned with the direct promotion of industry in ECWA countries have varied considerably. In some instances, it takes the form of guidance given by the State agency concerned, with overall economic and technical research (i.e. Planning Board, Ministry of Planning, Ministry of Industry). This guidance ranges from the outlining of a national development programme to the recommendation of establishing specific industries. In other cases, the bodies concerned operate mainly by channelling credit resources to finance expansion and installation of industries (i.e. Industrial

Development Banks). The same ends have often been served by means of direct contribution of public capital, resulting in the establishment of enterprises in which both the State and private interests participate in varying degrees. Lastly, the work of these bodies has frequently taken the form of setting up State enterprises, with a public character (General Organization of Public Sectors Projects).

Industrial public enterprises constitute the most important form of direct State promotion in most countries of the region. An in-depth analysis of the public industrial sector is hampered from the outset by the scarcity of data and the incompatibility of the data that exist. The information available makes it clear, that as a general rule, State effort has been channelled in the direction of basic industrial activities, calling for relatively substantial investment and entailing greater risks. This is particularly true in the case of most oil producing countries and in Jordan and in Yemen where the role of State enterprises has not been to compete with private capital, but rather to meet the growth requirements of industrial activities which the private enterprise was not in a position to serve. On the other hand, in countries where the economic system is more oriented towards controlled economic activities, such as Iraq and Syria, the role of the public industrial enterprises gained importance following the nationalization of the main industrial establishments early in the 1960s. As an exception to the above two positions with respect to public enterprises, in Democratic Yemen where the economic system is centrally planned, the position of the Government regarding the role of State enterprises is based more on philosophical grounds advocating State ownership of all means of production.

FINANCING INDUSTRY

Specialized Institutions for Industrial Financing

The need for a specialized institutional framework to supply the enormous requirements of long-term capital for the implementation of vigorous industrialization policies has been felt all along by countries in the region. Specialized institutions now exist, or are being established in practically all countries under review. The sponsorships, organizations, procedure and scope of these institutions differ from country to country. In Iraq, Syria and Kuwait, they are entirely Government owned, while in Jordan, Lebanon and Saudi Arabia, they are Government sponsered and jointly controlled with other institutional and private share holders. In practically all the institutions in question, the majority shares are held by local institutional and private investors.

Whatever the character of the existing specialized institutions, none of them, so far, have acquired a decisive importance in the process of industrial financing. Their performance is still too restricted to have any great impact on the industrial development of the countries concerned.

The Role of Central Banks in the Financing of Industry

The specialized institutions in Lebanon and Syria have received substantial support in the form of loans from their respective Central Banks. In addition, the Central Bank of Syria gives preferential treatment, in discounting for papers originating in industry. This has taken two forms. One form consists of imposing a lower discount rate on industrial notes and bills. Another form consists in permitting industrial papers to have a longer maturity for rediscount. Thus, the maturity of these notes is 300 days as against 120 for commercial notes.

In the other countries of the region, the role of the Central Bank in financing industry has been very limited.

The Direct Role of Governments in Industrial Financing

In most of the countries reviewed, Governments have provided direct financial assistance to industry, in addition to the indirect promotional measures.

One of the principal ways of direct government financing is direct investment by Ministries, State Organizations and other autonomous public authorities. Instances of such direct investments are found mainly in Irgaq and Syria, where the largest part of the industrial sector is in the public hands. Financial allocations for these investments are normally provided for in the annual budgets.

Direct investments could also take place through a Government company, such as for example, the Saudi General Organization for Petroleum and Minerals (Petromin), and SABIC. Established in 1962, Petromin is a public autonomous body, especially vested with the responsibility of promoting oil and mineral-based industries, either with Government finance or as a joint venture with private, domestic, or foreign capital. Through Petromin and SABIC, the Saudi Government has embarked on the promotion and establishment of a considerable number of large enterprises in the field of petrochemicals and minerals.

Participation in the equity capital of industrial enterprises is the most common form of Government direct investments in Kuwait and, to a lesser extent, in Jordan.

As elaborated above, one of the most common forms of Government assistance to industry is participation in the establishment of specialized institutions. Among the five principal specialized institutions in the region, three are fully owned by Governments, namely the Industrial Banks of Iraq and Syria, and the Credit and Savings Bank of Kuwait. The other two are mixed enterprises, with Government ownership amounting to 40% in the case of Lebanon, and slightly over 50% in the case of Jordan.

Other Instruments of Industrial Policy

The foregoing review of general industrial development measures and direct State promotional activities suggest, that a very substantial proportion of the efforts made has been directed towards encouraging the installation of new manufacturing activities. While this has been a basic objective, it is worth referring to some other types of responsibility assumed by public bodies and whose primary aims have been to improve the performance and efficiency of existing enterprises. These include technical assistance in the form of technical advice, training of skilled personnel, technological research and similar activities.

By and large, supporting activities of the type mentioned above are totally inadequate in the region. Thus, technical advice is given to entrepreneurs mainly through some of the specialized credit institutions established in the various countries of the region. This type of assistance rendered, however, has remained limited in scope, and its impact on industrial efficiency is not easy to evaluate. As far as the available supply of skilled labour is concerned, it has tended to lag behind the real requirements of industrial development. While a number of technical and vocational schools exist in most of the countries in the region, none of them, however, have sufficed to produce a large enough supply of workers trained in up-to-date production techniques.

Generally speaking, in most countries of the region, the supply of technicians has been undertaken mainly by State enterprises themselves through training their workers in specific branches of industry.

With a view to systematizing these efforts, some countries, namely Iraq and Saudi Arabia, have undertaken studies on human resources at the national level as a ground work for future programmes relating to the training of technical and scientific personnel.

The shortage and inadequacy of supporting activities is most marked in the field of technological research. An indirect indication to this inadequacy in the extent to which industrial enterprises in the region are increasingly resorting to the use of foreign patents and licences as a means of obtaining readier access to technical progress. In essence the assimilation of technology has been a passive process, consisting mainly in training in the operation of new production equipment but not affording sufficient mastery to provide a basis for creative activities that might have been reflected at least in the adaptation of technical progress at the world level to the special conditions of ECWA region.

In addition to the afore-mentioned instruments, mention should also be made of the public sector purchasing policy which in at least four countries of the region provide a preferential treatment to domestic industry.

INDUSTRIAL DEVELOPMENT POLICIES - A NEW ORIENTATION

Introduction

The foregoing review bring out the following salient features of industrial trends and industrial policy in the ECWA regions:

- In practically all countries of the region, the industrialization process is either at its very early stages or has not been accompanied as is the case in the relatively more industrialized countries such as Iraq and Syria, by sufficiently radical changes in the structure of society or in the economic structure of other sectors, to which, on the contrary, industrial growth patterns have had to be adapted. This is partly because in many instances the industrialization process was determined less by internal factors than by the impact of external events.

- Industrialization has not succeeded in enlarging popular participation in consumption. The market for several categories of manufactured goods has been constituted by relatively small sectors of the region's population, while other groups, especially in the rural areas, take little or no share in the consumption of industrial products. The possibilities opened up by mass production and the opportunities for rapid industrial expansion, have thus been seriously limited.

- Industry in the region remains to be characterized by a narrow range of products manufactured and a low-level of specialization. Furthermore, complementarity in production is limited and reliance on extra-regional markets for the importation of manufactured goods and for the exportation of primary commodities continue to dominate the composition of the region's trade.

- Production units in the industrial field has by and large shown relatively low level of productivity. Factors leading to this varied and resulted from the lack and/or level of skills, the suitability of technology as well as organizational and other institutional factors inhibiting productivity. Excess capacity is known to exist in many of the industries in the ECWA region, mainly as a result of insufficient demand, inadequate maintenance and production bottlenecks.

- The pumping of oil money after 1973 into the economies of oil producing countries and its indirect effect on non-oil producing countries has resulted in introducing structural imbalances in the cost of the factors of production and prices structure. This has been adversely reflected on the competitiveness of manufactured products especially in oil producing countries.

- Little progress has been made in the creation, adaptation and transfer of technology. The countries of the region are almost completely dependent on imported technology for their industrial development. Related to this is the development of human resources which are the pre-requisite for industrial development in the ECWA region. This calls for the transformation of the social and institutional environment in such a way as to make possible the formation and expansion on a sustained basis of a managerial and skilled elite and labour force that can assimilate, adopt, modify, innovate and apply modern science and technology.

The Responsibilities of Industrial Policy

The conclusion to be drawn from all that has been said so far is that industry in the ECWA region is facing increasing development requirements as well as an urgent need for reorientation and structural changes. Such requirements imply new and greater responsibilities in the definition and efficient application of the set of measures and instruments which constitute industrial policy.

The expression "industrial policy" in the context of development planning efforts summons up a picture of a series of properly co-ordinated measures and instruments used in pursuit of certain clearly defined aims. Perhaps it should be recognized that this has not been the case in the ECWA region.

Industrial policy in the countries of the region has consisted in a number of insufficiently related measures rather than a consistent overall line of action. Furthermore, this policy has not been expressed in terms of clear-cut objectives, nor has it been given the necessary continuity. It has also lacked selective criteria and has not carried much weight in shaping sectoral structure. Lastly, industrial policy has not always seemed to be sufficiently integrated with overall economic policy to provide a more dynamic impetus to industrialization. Thus, the characteristics of consistency, continiuty and selectivity combined with proper integration with general economic policy, appear to be the essential requisite of any future industrial policy. Proper planning should have made it easier to meet these requirements. This, however, did not materialize in most countries reviewed since the various instruments of industrial policy have not taken shape within the framework of long-term guidelines of any industrialization strategy.

In the light of these considerations, it becomes important to define the elements of an industrialization strategy for the ECWA region and then attempt to formulate a set of guidelines for an effective industrialization policy.

Elements of an Industrial Strategy

There are growing indications that import substitution may no longer play a leading role in the industrialization process for a number of countries of the region, despite the fact that the size of the national markets can often be expanded through internal policy measures, such as the introduction of better and more equitable distribution of income and more intensified geographical diversification of industries within each country. In fact, excess industrial capacity is already present in most of these countries, reaching in many cases 60 to 70%. Import substitution has been concentrating on producing mainly consumer goods additional to construction materials product that are increasingly dependent on imported input. The countries are posed for entry into what is sometimes referred to as the Second Phase import substitution calling for establishment of intermediate products for supplying the existing industries as well as the development of engineering industries including capital goods industries.

These industries are usually characterized by a relatively higher technology, higher level of manpower skills, including management, and greater economies of scale.

Furthermore, some countries, namely the oil producing ones, have geared their industrialization towards the processing of raw materials and exporting them to the advanced economies. The growth of the chemical and petrochemical industries is a case in point. For their development, these industries, have drawn largely on the technological and productive resources available in advanced eocnomies, whether capital or intermediate goods. Therefore, the technological skill that has developed only applied to a fraction of the industries; its industrial dependence and interrelations have remained largely with a more sophisticated economy abroad. Industrial investments in such situation could not transmit their benefits to various sections of the economy by deepening and extending the input and output relationships in industry and accordingly have failed in creating the cumulative process of growth characteristics of industry. It is worth noting, in this connection, that the oil rich countries, where substantial investments are being planned in resource based export oriented industries account for more than 90% of total planned investment in manufacturing for the whole region. At the same time, those countries are the most dependent on expatriate labour for the implementation of their development programmes. This situation would undoubtedly increase the present process of intra-regional migration of skilled labour from the non-oil countries to the oil rich countries in the region, which would complicate further the existing imbalances in the region.

Another consideration relates to how far the present trend towards "extensive" growth of industry will persist as against a calculated effort on the part of the policy maker to reorient it towards a more "intensive" growth, i.e., a greater internal structural integration of the major industries.

Turning to the regional dimension, the first issue of concern to an industrial strategy is how far industrialization efforts will continue to be directed towards the individual domestic markets, as compared with regional integration and the world market for manufacturing. Bearing in mind the conclusion reached earlier with regard to the necessity of re-orienting the process of industrial development in the region, an increasing measure of regional integration seems imperative, not only as an objective but also as a basic instrument towards a self-sustained economic growth.

Thus with respect to the location of industry, the question is how far a deliberate attempt will be made to modify the noticeable trends towards a marked concentration of industry in certain areas of the ECWA region. This problem may be considered from two separate angles: first, how far should industry contribute to the internal integration of the individual economies, which are often faced with serious disequilibrium in the development of their distinct component areas; second, how far will the location of industry be gradually adapted to conditions of progressive regional integration.

Lastly, urgent consideration should also be given to the issue of manpower absorption, which is no doubt one of the most serious problems which industry in the region is encountering. While the problem can hardly be solved through action in any one sector of the economy, it is necessary to deal with the issue on a priority basis and define a comprehensive long-term employment and manpower policy, which, in turn, would influence the industrialization strategy.

Broad Objectives of Industrial Policy

A strategy for industrial development formulated on the basis of the aforementioned broad guidelines would help define some broad objectives of an industrial policy for the ECWA region. Clearly, however, the definition of specific policy measures cannot be divorced from the special conditions of each country, its natural resource endowment, and, above all, its level of development. In the oil producing countries for instance, where capital resources are abundant, the approach to industrialization is bound to be different from that in countries with sizeable labour surplus. Again the industrialization policy which is valid for countries at a very early stage of development is not likely to be so for countries with a relatively long industrialization history behind them. The implication is that each country in the region, has to define for itself the appropriate strategy and hence policy for industrial development. However, there are certain priority objectives which are sufficiently common to most countries in the region although not in the same order of priority to warrant special consideration, and justify common action. These are:

- the development of integrated and balanced industrial sectors;
- the development of an efficient and competitive industrial sector capable of supplying an increasing share of the local markets as well as exporting manufactured goods;
- The development and efficient use of advanced technology and the associated manpower skills development;
- greater equality in income distribution; and
- the promotion of an integrated regional co-operation in the field of industry.

Technology

The assimilation of technology cannot continue to be restricted to the super-imposing of mere advanced phases of technical progress on a basically unaltered traditional structure. The phenomenon of "technological duality" witnessed in the countries of the region is incompatible with the objective of creating a more integrated industrial structure. Thus, training with a view to using scientific progress for acquiring a fuller knowledge of regional resources and their use, and to adapting production techniques to the specific conditions of the region, is another important aim of industrial policy in its broadest sense.

Costs of Manufactures

A basic objective which should guide industrial policy will be the elimination or mitigation of factors determining the high costs and prices of manufactured rpoducts in the region. Failing to attain this objective would jeopardise other important goals such as the expansion of domestic markets in addition to regional integration.

Productivity

The manufacturing sector has been suffering in most countries of the region from low level of productivity. Effective policy measures and action needs to be devised to promote improvement and induce higher levels of productivity.

Income Distribution

It is important that one of the aims of industrial policy should be to secure the manufacturing sector's contribution to a more progressive distribution of income within the individual countries and within the region. The urgency of this task would certainly be more understood when the economic imbalances which exist in the region and the wide disparities in levels of living among various countries are considered. Thus the region combines low income countries such as Democratic Yemen where *per capita* income is estimated at less than US $ 200 and oil rich countries where the *per capita* income exceeds US $ 12,000. Furthermore, some five oil-producing countries have each a population of less than one million and in some of these countries the population is as small as 200 thousand or less.

Furthermore, the information available for some countries show that salaries and wages paid in industry absorb a far lower proportion of the total value added than in the more advanced economies which suggests the importance too, of working towards a change in the distribution of income between the factors of production of industry itself.

Regional Prospectives

The foregoing review of the industrial policies highlights the fact that, in the absence of any regional co-ordination of national development plans, each country has been pursuing an independent national development policy. A series of factors, ranging from lack of technical "know-how", shortage of financial resources, insufficient specialization to the limited size of domestic markets, have prevented the dynamic growth of the industrial sector in most of the countries in the region.

As has been repeatedly asserted, the domestic markets of individual countries are too small to attract heavy industrial investment or even to encourage a suitable division of labour and the application of modern manufacturing techniques.

During the recent years, promotion at the national level has produced some encouraging results in several countries. The new industries that have been comparatively successful are mainly in the field of consumer, where the economies of scale are somewhat flexible. However, in other fields, the limitation and fragmentation of markets have already had some noticeable undesirable results.

Furthermore, the adoption of independent national development policies and the resultant creation of a number of watertight compartments constituted by small individual markets offering identical and narrow ranges of manufactured products has led to the creation of competing production structures instead of complementary ones.

The long-term consequences of such a pattern of development on the economic growth of countries of the region, could be summarized as follows:

- the limitation and fragmentation of markets would make virtually impossible the development of various capital goods industries;
- without facilities for manufacturing some of the basic capital goods, countries of the region would have to continue depending on advanced countries for their supplies and hence, for their production of consumer goods;
- under the present pattern of industrial production, the prospects for intra-regional expansion are far from bright, since the countries in the region would be exporting more or less the same commodities;
- the narrow inward-looking approach to industrialization has reduced investment opportunities in industry which promoted heavy investment in industries that cater essentially for markets outside

the region (e.g., petrochemicals). This sort of enclave-type of industrial development is contributing further towards the region's dependence on the outside world, most particularly the advanced industrialized countries, the main users of the products of such industries; and

- the combination of the above factors is creating conditions which would make it extremely difficult, if not impossible, for the countries of the region to achieve a breakthrough in sustained economic growth.

If this situation is to be rectified, countries of the region would need to take concerted action through formulating and adopting sound and consistent national and regional industrialization strategies and policies. The feasibility and necessity of co-ordinating the industrial programme of countries on a regional basis, and creating dynamic complementarities of industrial growth within the region, or within groups of countries in the region, has been the subject of much discussion by inter-governmental organizations affiliated to the league of Arab States and does not need detailed elaboration. A programme of regional co-ordination would contain the elements of a division of industrial activity in the region, whereby individual countries undertake large scale production of particular commodities for a regional market. Such a specialization of industrial production need neither interfere with existing capacities, nor militate against the development of an industrial structure with an all sided technological capacity within the countries. The programme would be conceived in sufficiently flexible terms; it could be composed of separate segments for sub-regional groups (i.e., certain petrochemicals in the Gulf region, agro-industries in the Northern areas, marine industries in the shore lines of the Penninsula, etc.). It could be restricted to the expansion of the market up to a given limit, after which, individual countries could develop their own plants if necessary for the growing domestic demand. On the other hand, one need not think of regional co-ordination in terms of "specialization" in the strict sense, or of countrywise monopolies of industry. "Regional" plants for a particular industry could be located in more than one country according to expanding market needs. Specialization, however, would be an important aspect of the programme. For example, the capital goods industry in the region could be more speedily developed on the basis of deliberate specialization. It could in certain instances take the form of joint ventures with capital participation by member countries. The programmes themselves to be effectively regional in character would have to provide the conditions for the dispersal of industrialization over the whole region. This would mean that comparative cost must not be the sole criterion in the distribution of industries for development on a regional market. For each member country to receive proportionate benefits, there would have to be a reasonable distribution of regional industries. In other words, co-ordinating investment decisions at the regional level, will have to be conceived in terms of a "package of projects" properly identified and in which all the interrelations in industry and trade are explicit, and the position of individual countries within the framework is clear.

In conclusion, it may be said that for each country of the region, it is increasingly important to introduce in its national industrial policy a regional outlook. In the years ahead, the rate of industrial growth in the region may well hinge on the extent to which the countries concerned can adopt the necessary measures to quicken the pace of co-ordinating the development programmes and efforts among themselves.

Specific Instruments of Industrial Policy

In the light of the information contained in the previous section relating to the instruments of industrial policy presently applied in the various ECWA countries and their efficacy, the operation of some of these instruments will have to be thoroughly reconsidered and revised with a view to adapting them to the guidelines and objectives of the industrial policy ennunciated above. More specifically, the following instruments ought to be given a fresh look.

Protection Mechanisms

Protectionism is one of the aspects of industrial policy calling for careful revision and rationalization. In practice the protective measures so far followed by most countries of the region have completely sheltered industry from foreign competition in a manner which became detrimental to efficiency and productivity and has led in some instances to monopolistic situations. The very aim of reorienting industrial growth towards a more integrated structure would be jeopardized if such characteristics of the protectionist policy were to persist. The same thing would happen as regards reconciling the need for import substitution with the efforts to encourage a significant flow of industrial exports.

Taxation

The taxation system should be devised in such a manner as to provide incentives for channelling financial resources from other economic sectors into manufacturing industry; help to reinforce the internal sources of funds earmarked for the expansion of enterprises; exercise some influence in increasing the use of available production capacity; help to direct new industrial investment into such sections or branches of industry which meet industrial development needs as a whole. An important aspect of taxation policy which calls for a careful re-evaluation relates to the temporary tax exemption measures. How far exemptions are justified? What effect they have on enterprise efficiency? How much discrimination is exercised with respect to other exisiting industrial enterprises? These are all matters that require examination.

Industrial Credit

Besides constituting the major source of external funds for financing the expansion of industry, industrial credit can play a vitally important part in guiding industrial activities towards particular goals.

Various studies have already indicated that in a number of countries the shortage of financial resources has increasingly become a bottleneck to expansion in the activities of specialized lending institutions, namely the industrial banks.

The Government will have to provide appropriate incentives such as guaranteed minimum dividends, or tax free dividends etc., in order to mobilize resources to such institutions. In certain cases, Government could also apply various forms of pressure on the existing financial institutions to buy the shares of bonds of an industrial bank.

With few exceptions (the Industrial Bank of Jordan), all specialized institutions place too much emphasis on security and too little on the profitability and earning potential of the enterprise. It is worth mentioning in this context that "industrial plant and equipment" are considered poor security in most countries, because it may be difficult to realize their value even in good times, let alone bad times.

A shift of concern from too much pre-occupation with security, to interest in the potential earning of the enterprises will naturally lead to a corresponding interest in equity investment. In new enterprises, equity participation is probably the most appropriate form of assistance. In most countries of the region such participation is limited by the availability of funds rather than by the statutory powers of the specialized institutions.

Besides increasing the resources of specialized institutions, a substantive reform could be introduced in the traditional operation of the commercial banking system. Thus it would appear necessary to examine how far influence can be brought to bear through the monetary authorities to earmark resources for industry in preference to other goals and even to introduce selective criteria for determining the priority to be granted to different manufacturing activities.

Public Instruments for Promoting Industry

The promotion of State-owned enterprises and the activities of other bodies responsible for promoting new industrial projects has proved as shown earlier, to be particularly efficacious in developing productive lines which could hardly have emerged had they been left to private initiative. It is important therefore to strengthen and expand public enterprises.

Besides these directly promotional activites, there are other activities no less important, that deserve reconsideration and immediate attention. These activities exercise only an indirect influence on industrial development and relate mainly to the human and technological infrastructure requirement for industrial development.

Most important among these activities are those concerned with the probelm of training of manpower and technical personnel in view of their impact on productivity levels.

Productivity could certainly be raised by improving management at the top and supervisory levels and industrial relations. There is an immediate need in the ECWA region to establish management development and productivity promotion organizations in countries where they do not yet exist, and to strengthen those existing already. The possibility of intra-regional training schemes should be explored. It would be useful also if the curricula of colleges and universities were expanded to include subjects pertinent to the development of management skills and industrial relations.

The same consideration might apply to the responsibility borne by various public agencies for carrying out technological research with a view to facilitating the adaptation and transfer of technology.

Little progress has been made in the creation, adaptation and transfer of technology. The countries of the region are almost completely dependent on imported technology for their industrial development. If the countries of the region are to select efficiently the appropriate technology and also to adapt it and gradually develop it so as to take into account climatic conditions, availability of labour skills, water, raw materials and the other scarce resources, it is vital that their own technological capabilities should be extensively developed, both at the national and regional level.

Adequate amounts of financial and human resources should be invested in research and development (R and D), meaning mainly research in and development of new techniques, processes and products. For a country to evolve a mature industrial economy, with the ability to match and compete with other industrially advanced countries, it should be able itself to create and innovate new processes and products. This can only take place by means of basic and applied research in the various physical and social sciences. A notable feature of the industrial scene in most countries of the region is the low level of priority given to R and D. While in some countries, industrial research institutes have been established, few Governments have, so far, followed a policy of encouraging the industrial enterprises themselves, especially the larger among them, to initiate their own programme of research and product development.

Existing research and design institutes should be strengthened and expanded and new ones created. Scientific and technological research should contribute towards the solution of specific problems facing industry. The process of industrialization should not be looked upon only from the point of view of increasing capacity and output but also from the broader aspect of the need to introduce radical changes in the structure of the society, particularly in its methods of education and of scientific and applied research. Because of the scarcity of scientific and technical manpower and facilities, there may be a good case for closer regional co-operation in this field, perhaps in the form of effective support of, and participation in, regional research, training and design institutes for industries which are strategically important for industrial development.

Attention might be drawn also to the felt need of advisory assistance from the State to private investors in connection with production processes, norms and specifications, agreements and contracts in respect of licences as well as the preparation and evaluation of industrial projects. Such advisory services should be intensified whenever they exist and established if non-existent. Not only could this result in greater efficiency, but could also help orienting industrial development within the framework of an integrated structure at the national and regional levels as well.

SUMMARY AND CONCLUSIONS

Over the last two decades most countries of the region have been making a strenuous effort to accelerate their industrial development. Despite these efforts, the pattern of industrialization has not been basically altered in the region. Manufacturing, as a whole, remains to be characterized by a narrow range of products manufactured and a low level of specialization. Complementarity in production is limited and reliance on extra-regional markets for the importation of manufactured goods and for the exportation of primary commodities, namely, crude petroleum and primary agricultural products, continue to dominate the composition of the region's trade. Artificial restrictions hindering the flow of intra-regional trade is still widely applied in the region, while little has been done to improve efficiency which is a pre-requisite for the development of exports and for the creation of an integrated industrial structure. The industrial infrastructure, especially regional infrastructure, remains grossly inadequate and there is scarcely any co-ordination between national development policies and plans.

In the last decade, this was further aggravated because of the high increase in income after 1973 in the oil economies which found its way to the rest of the region through direct government donations and remittances of workers. This has introduced a new and unprecedented dimension thus affecting dramatically the tempo of industrial and economic development additional to intorducing structural imbalances. The effect of this new source of income, which did not originate in the commodity producing sector, inter alia has been on consumer tasks to the advantage of imported manufactured products. Domestic industry was thus faced on the one hand by a more sophisticated pattern of consumption which it could hardly satisfy; and on the other hand with rising production costs due to the openness of the region to world inflation and the high cost structure of factors of production induced by the sudden increase in oil income.

If this situation is to be rectified, countries of the region would need to formulate and adopt sound and consistent national and regional industrialization strategies and policies with a decidedly new-orientation. The urgency of this task may perhaps be better appreciated when the experience and impact of the industrialization process as well as the industrial policies which contributed to shaping its pattern are considered.

The ability of the region as a whole, to achieve high rates of industrial growth over the last decade was mainly due to the fact that ç important substitution, at the national level, was playing a leading role in the industrialization process. The investment decision, however, has not been systematically co-ordinated to build industrial capacity in inter-related fields. Thus, the structure that emerged consisted of a large number of assorted industries, largely light consumer ones requiring simple technologies and having very little complementarity among themselves and by and large with the rest of the economy. Furthermore, the contribution of manufacturing to domestic product in most countries was smaller than expected and did not exceed 10% in general over the period under consideration.

In terms of per capita income, the relative contribution of the manufacturing sector to the increase in urban per capita income has increased during the period reviewed at an annual rate of less than 1% during the decade as against an annual urban population growth rate of more than 5%. This fact is of particular significance since demand for manufactured goods in most of these countries is largely conditioned by urban consumption pattern. In other words, manufacturing activity accounts for only a small part in generating urban income increases whereas the non-commodity sectors mainly play the major role in determining urban consumption levels. To illustrate further, information relating to the supply of manufactured products, and available for a number of ECWA countries, indicates that the combined contribution of domestic manufacturing output to the increase in the availability of manufactured goods did not exceed 35% throughout the decade. This percentage would have undoubtedly been much lower if the output of oil-based industries (oil refining and products) were excluded.

On the other hand, and despite the increases in the combined industrial output of seven ECWA countries which grew at an annual rate of more than 23%, the ability of the manufacturing sector to satisfy domestic needs did not exceed 42% in recent years, compared to 57% in 1970.

The limited production basis and the fragmented nature of the industrial set-up combined with the lack of complementarity in production has reflected itself on the pattern of imports and exports of manufactured goods. Thus, a high proportion of the goods required for production are being supplied by imports mainly from developed markets. Available data indicate that despite fluctuations, the relative share of imports of manufactured intermediate products to total manufacturing imports is gaining increasing importance approaching a percentage contribution of 50% at the regional level. When compared with the level of manufacturing output, information on selected ECWA countries shows that intermediate imports of manufactured goods has recently accounted for 76% of total manufacturing output in the countries concerned collectively, compared to 41% in 1971. This increasing dependence on external markets for industrial inputs such as unprocessed materials and machinery and equipment for industrial use are included.

As for the exports of manufactured products, they have recently constituted about 9% of the region's total exports as compared to 14% in 1971, and it has continued to be concentrated mainly in chemicals and petroleum products which accounted for more than half the total.

In the absence of a co-ordinated approach to industrial development, the fragmentation and weakness of the industrialization process is bound to continue in the future and would inevitably lead to the full integration of the region's industry with the outside world and eventually its total dependence on exogenous forces.

The region's pattern of industrial development has been considerably influenced by various actions taken by public bodies, as a consequence of provisions and measures deliberately adopted to protect, encourage and facilitate the industrialization process, including direct State promotion. These provisions and measures constituted what might be termed industrial policy.

Generally speaking, tariff protection combined, in some cases (e.g., Iraq and Syria) with administrative and quantitative restrictions has constituted the mainstay of protectionism in most countries of the region. As far as tariff policy is concerned, information available for selected countries revealed that tariff rates are highest on consumer goods while much lower rates are applied on capital and intermediate goods as well as raw materials. This structure of tariff is mainly a reflection of the importance attached to import substitution as an immediate requirement of industrialization, although, as was the case in many instances, with considerable sacrifice of productive efficiency, costs, prices and a rational industrial base. The result was an extensive rather than intensive type of industrial growth. In other words, the tariff structure has been favouring production lines related to the demand for final consumer goods, even though only the finally processing stages were covered. Furthermore, by drawing resources into protected industries, they have had a negative effect on other industries receiving less protection. Moreover, the fact that such protectionist policy has most of the time maintained an absolute level of protection on a large scale, without any pressure on the industrial branches already established to effect a steady improvement in their productivity and efficiency, has had adverse consequences for costs and prices of manufactured goods in the countries of the region.

This approach to protectionism has created conditions which made it difficult to combine import substitution with the introduction and expansion of exports of manufactures at any substantial scale.

Instruments of general economic policy, relating to taxation as well as certain features of monetary and credit policy have also been used in varying degrees, as indirect incentives for industrial promotion.

In some countries, namely, Iraq, Jordan, Lebanon, Kuwait, Saudi Arabia and Syria, this has taken the form of an industrial development legislation. In most countries, however, there has been a collection of miscellaneous provisions, either of a general nature, such as income tax exemption, tax rebates, credit incentives, etc., or relating to measures, aiming at regulating and encouraging investment in industry.

The effectiveness of these provisions and measures in stimulating industrial development in the ECWA region in terms of favouring the channelling of resources into manufacturing, influencing certain lines of prodution, facilitating expansion and raising efficiency and productivity, has been very limited.

In addition to the general incentives deriving from protectionist policy and from other measures designed to stimulate and encourage industry, direct State promotion emerges as a basic instrument of industrial policy in the majority of ECWA countries.

Industrial public enterprises constitute the most important form of direct state promotion. As a general rule, State effort has been channelled in the direction of basic industrial activities, calling for relatively substantial investment and entailing greater risks. This is particularly true in the case of most oil producing countries and in Jordan, and in Yemen where the role of State enterprises has not been to compete with private capital, but rather to meet the growth requirements of industrial activities which the private enterprises were not in a position to serve. On the other hand, in countries where the economic system is more oriented towards controlled economic activities, such as Iraq and Syria, the role of the public industrial enterprises gained importance following the nationalization of the main industrial establishments early in the 1960s. As an exception to the above two positions with respect to public enterprises, in Democratic Yemen where the economic system is centrally planned, the position of the Government regarding the role of State enterprises is based on philosophical grounds advocating ownership of all means of production.

The increasing importance of the role played by public enterprises in industrial development is evident from the share that these enterprises have been occupying in total planned investments.

Qualitatively, however, the contribution of direct State promotion has been of a different order, in as much as it has paved the way for the development of new basic industries. Thus, generally speaking, and aside from its "entrepreneurial" role the promotional activities of the State has helped introducing more favourable conditions for the development of manufacturing industry in countries of the region.

Promotion through public enterprises has been supplemented by activities aiming at prevailing industrial establishments with its financial requirements of long-term and short-term capital. In many instances, the State has provided direct financial assistance to industry. In other instances, it has helped in the establishment of specialized institutions for the purpose.

The general industrial development measures and direct State promotional activities suggest that a very substantial proportion of the efforts made have been directed towards encouraging the installation of new manufacturing activities. While this has been a basic objective, it is worth referring to some other types of responsibility assumed by public bodies and whose primary aims have been to improve the performance and efficiency of existing enterprises. These include technical assistance in the form of technical advice, training of skilled personnel, technological research and similar activities. By and large such supporting activities are inadequate and limited in scope in the region. This inadequacy, however, is most remarked in the field of technological research.

Generally speaking, industrial policy in the countries of the region has consisted in a number of insufficiently related measures rather than a generally consistent overall line of action. Furthermore, this policy has not been expressed in terms of clear-cut objectives, nor has it been given the necessary continuity. It has also lacked selective criteria and has not carried much weight in shaping sectoral structure. Lastly, industrial policy has not always seemed to be sufficiently integrated with overall economic policy to provide a more dynamic impetus to industrialization. Thus, the characteristics of consistency, continuity and selectivity combined with proper integration with general economic policy, appear to be the essential requisite of any future industrial policy. Proper planning should have made it easier to meet these requirements. This, however, did not materialize in most countries reviewed since the various instruments of industrial policy have not taken shape within the framework of long-term guidelines of any industrialization strategy.

In practically all countries of the region, the various policy measures and instruments for the implementation of industrial plans and programmes are not spelt out in detail, and in most cases are discussed in rather general terms. The success of these plans and programmes will depend largely on the continuing efforts of the Governments to improve the development of their administrative machinery which is responsible for the co-ordination of various policy measures as well as between the various departments concerned with the promotional aspects of the programme.

Industrialization in the region needs to go through a process of re-orientation and restructuring where exports of manufactures to the international and regional market, and where appropriate, widening of the national import substitution process would form the basis for a new industrialization strategy.

In formulating an industrialization strategy for the ECWA region, the following aspects will have to be considered both at the national as well as at the regional levels:

- the creation of a balanced industrial structure through the development of a wide range of productive capacities in capital, intermediate and consumer goods, and technological capacities in engineering, chemical and electrical industries;

- the planning of "import substitution" within the larger framework of an adequate industrial structure;

- the development of an efficient and competitive industrial sector capable of supplying an increasing share of the local markets as well as exporting manufactured goods; and

- the development and efficient use of advanced technology and the associated manpower skills development.

In considering the possibility of formulating an integrated and balanced industrial programme at the national level, it would appear that no single country in the ECWA region possesses adequate resources or has an economic structure which contains the elements for its realization. This consideration points to the urgent need to promote co-operation and co-ordination among countries in the region, in their development efforts. It also implies new and greater responsibilities in the definition and efficient application of the set of measures and instruments which constitute industrial policy.

It is therefore, important that countries of the region introduce in their national policy a regional outlook which so far has been lacking. It would not be exaggerated to say that in the years ahead, the rate and pattern of industrial growth in the region may well hinge on the extent to which the countries concerned can adopt the necessary measures to quicken the pace of co-ordinating the development programmes and policies among themselves.

INDUSTRIAL RESTRUCTURING AND ADJUSTMENT: AN NGO VIEWPOINT ON CONSIDERATIONS FOR NORTH AND SOUTH by the International Coalition for Development Action (ICDA)

INTRODUCTION

The international division of labour is a result of a dynamic process of change and stagnation. In periods of economic growth the countries of the North are in a continuous process of restructuring their economies. Production in the developed market economies tends to become more capital and skill intensive. Developing countries can take their chances on international markets by specializing in exports of primary products and manufactured goods that are produced in a relatively labour-intensive, low-skill fashion. However, continuous productivity increases and intensive competition among (groups of) companies have caused the Western markets to become saturated. Over investment, under-use of capital, growing stocks, increasing unemployment and diminishing outlets were among the first signs of economic crisis in the North. For developing countries the effects of this were quick and dramatic. In general, demand for, and therefore prices of, their exports fell dramatically. In 1981, the terms of trade for most developing countries deteriorated by 6% on the average.

Trapped into production of primary commodities - which account for over half of developing countries' exports (fuel excluded) - they soon felt the effects of the weak and dependent character of their export growth. The volume of exports of primary products to developed market economies at the end of the 1970s did not rise any longer.

The negative effects of decreased demand for primary products in the North (caused by import substitution in tobacco and so called "temperate zone foods" and continued substitution of synthetics for natural materials) were heavily aggravated by the occurence of recession and decline in economic growth. Especially in the OECD countries demand for industrial materials fell considerably. This can mainly be attributed to stagnation in production.

Special attention should again be given to the Third World exporters of manufactures. Developing countries have a certain advantage in the production of some types of manufactured goods. Low wages, a relaxed tax system, location near sources of minerals and/or fuel, absence of environmental regulations, etc., give rise to a certain type of industrialization. Output of manufactured goods in developing countries as a percentage of this output in the developed market economies rose from 11% in 1963 to 15% in 1980.

Export volumes also continued to expand. But, in recent years, both output and exports of manufactured products grew less rapidly because of the recession in their major markets.

Mainly because of Western policy decisions, developing countries are forced to operate in a hostile economic environment. Especially monetary and trade policies in the North are hampering the developing countries in their efforts to further development or, at least, manage the crisis as it affects them.

To finance their growth, it was especially the industrializing developing countries who could easily obtain foreign currencies on the international capital markets in the 1970s. Because of the deterioration in their terms of trade and stagnation in export volumes, though, they proved unable to pay the money back. Big and growing deficits on balance of payments accounts (for deficit countries as a group, $76 billion in 1980 and $92 billion in 1981) forced developing countries to seek even more credits.

Meanwhile, in the United States the Reagan Administration decided that the battle against inflation was among the most important. The tightening of monetary policy had an immediate effect upon interest rates all over the world. The main rate in the Euro-currency market, for example, rose from 8.7% in 1978 to 16.5% in 1981. "This increase meant that interest payments on medium-and long-term debt in 1981 were about $11.5 billion higher than they would have been at the levels prevailing in 1978". (UNCTAD Trade and Development Report, 1982: 18). Also, in multilateral lending institutions the credits had to become more expensive. This only worsened the problems for the countries that are more or less dependent on the financial support of these institutions.

As a result, the net investment income of developing countries (major oil producers excluded) has become strongly negative in recent years. Profit remittances and interest payments in 1981 rose by 25% to $44 billion. In 1983, when total debt for this group is expected to reach as high as $600 billion, the net investment income will have a negative figure of $45 billion which is about one half of their aggregate current account deficits.

Growing balance of payments deficits and rising debts will, if monetary policies in the North keep interest rates as high as they are now, be a heavy burden on every opportunity for new growth. Only if OECD policy makers decide to relax their attitude towards the money supply, will developing countries have new chances. Only when interest rates go down and, in the long run even more important, when demand on Western markets (where interest rates also hinder new investment) is restored will it be possible for developing countries to pay for their imports (and debts) through greater exports.

Western policies

In this context trade policies in the developed market economies are of vital interest. Trade, in the ideologies of Western governments, is an important engine of economic growth. Free trade is seen as a situation in which all participants can receive their optimal material benefits. However, close political and economic cooperation among countries and the possibilities to restructure one's economy efficiently, according to the principles of the international devision of labour, are conditions to be fulfilled before this free trade situation will lead to an optimum. In practice, national interest or interests of certain groups of countries, like the EEC, prevail over and above the general interest of all participants in trade. Also, in practice, within free enterprise economies an effective restructuring policy is non-existent. Private interests of capital owners are not really challenged by government planning seeking a solution in the interest of all involved (provided such a solution exists in theory).

Because of this gap between ideology and practice, actual policies in the North are, in fact, dominated by two targets: promotion of exports and protection against foreign imports. Export promotion is seen by most Western governments as one of the more prominent policy options to fight internal economic problems. Exports are stimulated by measures which provide management with information on foreign markets, by export credits and, much more important, by general measures that reduce production costs to make competition on foreign markets easier. Exporters are supported not only by withdrawl of regulations on, for example, environmental standards but also, and mainly, by curtailment of trade union freedoms to negotiate for higher wages.

This policy of austerity is threatening for developing countries in at least two ways. When real wages are depressed in the North, this has a negative effect on purchasing power and, thus, on demand for consumption goods produced in developing countries. At the same time, exporting countries of the Third World, in markets where they have gained some strength, immediately feel the new competition of Western products at lowering costs.

So, wage cuts not only affect the purchasing power of Western workers but also hinder the export performances of the Third World. This negative effect is aggrevated by a general policy against import penetration, notably from the Third World.

In the postwar period, import tariffs went down in general. Still, in sectors that are threatened by imports from developing countries, tariffs are relatively high. Besides this, there is a growing tendency to fight import penetration by means of non-tariff measures. Quota, quality demands, anti-dumping measures and so-called "voluntary" export restraints are among these. A classic example in this context is the set of regulations on textiles, negotiated in the Multi-Fibre Arrangement. For developing countries as a group this arrangement covers almost one third of their exports of manufactured goods.

These protective measures reflect unwillingness in the developed market economies to undertake a planned adjustment action towards investment decisions of capital owners and/or management. But it also reflects a desire to pass the costs of this unwillingness on to foreign countries. The countries of the North, very much dependent on each other's economies, respect free trade among themselves. But their weaker partners, i.e. the developing countries of the South, have to pay the bill.

Third World policies

Does this mean that we are in favour of a return to the ideology of free trade? Not necessarily. For a number of reasons it is doubtful if, in a better international climate, exports are a good solution to the problems facing the Third World. Almost half of world trade at this moment takes place within the structure of transnational corporations. These companies set the prices and own the technology. In the international private banking system they control the money supply, at least to a crucial extent. In such a situation the value of policy options chosen by governments should not be over estimated.

But there are other reasons why the positive effects for developing countries derived from international trade and exports should not be seen as too positive.

- Export growth in developing countries can lead to new employment, but mainly because of low wage levels, the development of an internal market tends to be quite slow. Demand in the international markets, and not the national necessities remains the guiding principle for investment.

- Exporting developing countries are in a heavy competition to offer foreign capital a favourable climate for investment. To keep labour costs at a competitive level, wages must be low, working days as long as possible, trade unions are often forbidden or curtailed and political rights are often minimized.

- Export-led growth tends to deepen dependence on the outside world. Private capital is necessary to start investment and often direct foreign investment is the only way to get an export sector off the ground. When production is started, a great deal of imports are necessary to get the factories running. Because of this, positive net results of trade are far from certain.

Developments in the international division of labour, as described above, can lead to at least three important conclusions: 1) For developing countries, benefits from trade have strongly diminished; 2) Economic policies in the North are more and more responsible for an increasingly hostile economic environment in which developing countries have to perform; and 3) For all kinds of internal reasons, too, export led growth is not automatically the solution to stagnation in the developing world.

General Framework for Policy Changes

Policy measures based on the above three-fold considerations should be dealt with in the context of the following elements.

Exports can make an important contribution to growth and development as they provide the foreign exchange required to finance imports. This applies especially to small developing countries that are highly dependent on imports. Many developing countries are small and therefore the topic of the gains from trade is highly relevant. Exports are often a necessity but never a sufficient condition for the alleviation of poverty. The gains from trade made by developing countries should not just be for the benefit of a limited elite but should be linked to a development policy directed toward a people-oriented and self-reliant development.

What is at stake is the question of how the gains from trade can be increased for developing countries in a way that is acceptable for both North and South.

Manufactured export production as such is of great importance to the export position of only a few resource-poor countries at this moment and it is expected to become of greater importance to many more countries, notwithstanding the slowing down and reallocation tendencies in certain sectors due to recent technological changes.

It is of only limited use to talk of manufactured exports in general. A differentiation should be made between different kinds of manufactures, that differ in employment, income and foreign exchange effects, and in spread effects on the rest of the economy.

We can distinguish three kinds of manufactured exports: a) resource-based manufactures; b) exports from industries that are linked to the rest of the economy and produce both for the domestic and for the foreign markets, and c) footloose export production, often concentrated in the Export Processing Zones (EPZs).

Linkage and spread effects are considered to be of particular importance. Linkages are not only of importance because of their impact on product, income, employment and foreign exchange, but also because of the potential increase of bargaining power of labour organizations and governments. In terms of the above, EPZs offer the least positive option.

In discussing trade and restructuring policies one should discuss problems in North and South simultaneously. In that context it is of great importance to take good notice of the fact that trade and restructuring problems of the North are not caused primarily by the South. The impact of manufactured imports from the South on employment and income in the North is still marginal: about 7.5% of total manufactured imports of OECD countries and 2% of total manufactured production. The net employment and income effects of North-South trade are positive for the North, which is another way of saying that more jobs are created by exports to the South than are lost by imports from the South. However, in some sectors such as textiles, clothing, leather, shoes, wood processing and certain parts of the electronics sector, import penetration from the South into the North is much higher than average.

The structure of trade barriers in developed countries, however, tends to discriminate against particular production areas in which developing countries have concentrated their export efforts. This bias can be explained by the weak position of developing countries in the world trade system, the lack of countervailing power and of retaliation possibilities of developing countries.

The exaggerated emphasis given to the imports from developing countries as a source of job displacement in the North diverts attention from the other sources, such as changes in demand, technological change and competition among the North, which have proved to be of far greater importance.

Tendencies towards increasing protectionism in the North can only be reduced when alternatives are created by governments for jobless people.

Policies in developed countries that interlink employment and industrialization programmes in a direct and traditional way are not useful any more. Industry cannot provide sufficient jobs in the future. This traditional approach in which industry is a major employment-creating sector is a serious obstacle to export prospects for developing countries. A complete revision of trade, industrialization and employment policies in developed countries is called for. These should take into account the considerable changes that have taken place in world industrial production and are likely to take place in the future and that result in decreasing job opportunities in industry in developed countries.

Conclusions

In conclusion, the following more specific recommendations are suggested:

Protectionism should be reduced by a restructuring process that does not focus on growth alone but on growth that is accompanied by redistribution of income and job creation outside the manufacturing sector. Domestic recovery programmes in developed countries will be judged on their employment and income effects.

More insight into the complete but partially invisible protectionist system is clearly needed. This implies that the whole system of subsidies, quotas, tariffs, voluntary export restrictions, has to be made more transparent. This indeed may have great consequences as it deepens into who stands to gain and to lose from protectionism. It is a way of revealing and assessing existing power structures in developed countries, in particular the role of the TNCs.

It would be welcomed if sources of information - like UNIDO's technology information exchange system (UNCTC) - would be available not only to governments, but also to Non-governmental Organizations.

Although developing countries are not the major cause of trade and restructuring problems in the North, the protectionist system shifts part of the burden of these problems to the South. This is because of the lack of countervailing power and retaliation possibilities. Developing countries can side-step this lack of power by increasing barter trade and a system of preferential tariffs among developing countries. These could be indirect means to force developed countries to reduce protectionism.

Institutional facilities to increase Economic Cooperation among Developing Countries (ECDC) should be encouraged by means of aid from multilateral institutions to build up an adequate framework and infrastructure that can stimulate ECDC.

Gains from trade have to be increased by means of upgrading exports into more advanced sectors and by a better integration into the domestic economies of developing countries.

EPZs are the least desirable form of export production. There is a severe lack of local linkages, a low contribution to the transfer of technology and in EPZs production is based on severe exploitation of the, often mainly female, working force.

It is important that provisions should be made to ensure that EPZs cannot be used to circumvent or weaken existing labour standards or regulations on freedom of association. By way of well defined social clauses in trade, the application of ILO labour standards should be pressed for.

SOME REMARKS ON PROPOSALS FOR ECONOMIC RECOVERY IN DEVELOPING COUNTRIES by Dietrich Kebschull*

INTRODUCTION

Economic Interdependence between North and South

During the past decades a number of arguments and theories have been mentioned for the justification and intensification of economic cooperation between the industrial and developing countries. According to the political and social background, foreign policy, economic or also humanitarian aspects attained priority in this context.

In the western industrialized countries the economic dimension has traditionally dominated. Particularly during the reconstruction phase after World War II an optimistic attitude has been assumed relying firmly on the strength of one's own economic resources. Above all the strongly export-oriented Western European states believed themselves to be able to create important additional markets for their export products by the transfer of capital and know-how to the Third World. The transfer of resources was considered to be necessary and sufficient for realising a widely spread growth process with increased investments and additional employment. Import demand, growing due to increasing incomes, would effect additional exports from the industrial states and thus secure employment in those countries and stabilize and steady the desired courses of growth.

This simple interpretation of world economic interdependence and concepts of growth on the basis of investment multiplier and accelerator models found its supplementation in a relatively unreflected optimism regarding the structural adjustment ability over the course of time. At the top of the wave of technical progress one proceeded from the fact that industries and enterprises weak in growth - with an under-average productivity - could be shut down or evacuated to other countries without problems for the national economy. Discharged labour should take over more sophisticated activities in growth branches and through this restructuring effect further progress and growth. The securing of full employment did not appear to be a problem. Together with the control of technical progress and structural change only short frictional situations of unemployment would have to be mastered. The brief experience of the 1950s and early 1960s lead generally to the reliance on the steady setting-in and utilization of technical progress in consequence of systematically continued research and development activities with rising income.

Professor Dietrich Kebschull, Director, Department for North-South Relations, HWWA

Developing countries and international organizations seem to regard the advantage of this theory with even more sympathy the more the industrial nations doubt the conclusiveness of this argumentation. Above all they are interested in the increase of capital transfer to their countries. In order to sell this idea to the industrial nations again and again stress is laid on the exports necessarily growing via the relationships of interdependence.

While the industrial states consider the development of markets in the Third World as only one opportunity among others for the securing of their national economies' growth, the developing countries go so far as to recommend the strengthening of the interdependence relationships even as a panacea for the world economy. Thus for instance it is frequently remarked that the persistent worldwide recession could be overcome by an increasing transfer of resources to the Third World. Those who ascribe the stagnation to the saturation of demand in industrial states, partly suggest that this saturation could be evaded by satisfying fully the still not covered demand in the developing countries.

Of course the experiences with North-South cooperation show clearly that the hope for, and the reliance on, the effectiveness of economic interdependence are not justified. The theoretically supposed connections between transfer of resources and growth in donor and recipient countries are as little compelling as the structural adjustment processes in the involved countries. Doubts seem to be opportune mainly with regard to:

- the productive utilization of capital, since the inflow of resources is frequently being used for consumption purposes or also only for covering current debt service liabilities;

- the necessity of complementary factors for capital only could not be a guarantee for growth;

- the time required for effects to take place and their impact on the whole economy; and

- the connection between (not at all secured) growth and the additional exports from industrial countries induced by that. The volume of these deliveries depends strongly on the economic conception followed by the developing countries. The more they tend towards the covering of basic needs or to cooperation between developing countries, the lower the exports of industrial manufactures will become, with which the industrial states would have their comparative competitive advantages. Besides, it is not certain that the capital exporting countries will actually profit from higher exports to the extent of their capital transfers plus certain multiplier effects. It is entirely possible that the developing countries' additional demand is directed towards industrial states which are more competitive or have traditional ties to certain regions that favour their exports. In order to avoid this the capital exporting countries could turn to increasing tied aid. Such ties would also delay or even obstruct the necessary structural change. The adjustments would be dammed up. Thus also the tendency towards following protectionist measures will also be increased, with which unavoidable adjustment processes will be artificially delayed. That this would be to the disadvantage of the developing countries need not be especially underlined.

In spite of its doubtfulness the conception of the economic interdependence between North and South plays a major role now as before. It is time and again cited as a basic element particularly in connection with the discussion of opportunities of mastering the worldwide recession and stagnation tendencies.

The main proposals for a stimulation of the world economy - and thus also for the promotion of the developing countries - are to be considered in the following. To begin with, the plans for a massive transfer of resources in discretionary or automatic form are considered. They are contrasted with the more extensive immediate programme of the Brandt Commission that shows distinct parallels to the proposals of the non-aligned nations and the UNCTAD Secretariat. In conclusion, a look is taken at the recommendations of the former chancellor of the Federal Republic of Germany, H. Schmidt, highly appreciated in the industrial countries, proposing a stability and growth pact of the most important industrial nations, and which should be of importance for the approaching summit conference at Williamsburg.

Massive Non-automatic Transfer of Resources

Marshall Plans

The recent proposals for an increased transfer of resources proceed at least implicity from the assumption that the decisive cause of underdevelopment and of the too slow speed of growth is to be found in the lack of capital. Regarding all mechanisms or instruments the main problem is an as simple as possible raising and providing of extensive and additonal amounts of capital.

Numerous recommendations favour therefore the idea of a Marshall Plan Aid for developing countries. Above all the positive experiences of the Europeans with the American economic aid programme for the Europe's recovery (European Recovery Programme) after World War II are to be copied. The USA provided 2.5% of its GNP in the form of goods deliveries (foodstuffs, raw materials and capital goods) for a period of five years.

The 100% return flow of the funds made available was guaranteed. European states or enterprises could order or buy goods in the USA. Payment to the American exporters was made in US $ through the US Administration. The equivalent of the imported goods had to be paid by the importers into a counterpart fund which served the financing of further reconstruction programmes.

The great success of the Marshall Plan in the West European states causes the Development Assistance Committee (DAC) of the OECD to recommend such a programme to their members, for which additional funds amounting to US $ 10 billion annually would have to be provided. According to the calculations of the DAC this sum would not only provide a contribution to the financing of economic growth in the developing countries, but would also lead to additional demand in the industrialized countries to the sum of US $ 20 billion.

In spite of extensive discussions no serious attempt came about as yet to realise these plans. Numerous shortcomings and obstructions in industrial and developing countries have probably been causal for this, letting the transfer to this concept, so successful in Europe, come to naught.

The major reason for the demand for a Marshall Plan is the diagnosis of capital shortage. Little attention is, however, paid to the central question as to how the additional capital for the Third World should be raised. The past shows that demands for an increase of public development aid have frequently been unsuccessful. This plan could be attractive mainly because of the prospects held out of a return flow of the raising of the funds, in a number of states much smaller return flow quotas will possibly come about - depending on their international competitiveness. This might cause them to stop their further participation in this initiative. The possible fixing of the return flow quota using the instrument of tied aid is indiscussable in connection with the intended assistance.

In addition the Western industrial countries, owing to differing targets, so far do not undertake a uniform development policy. So it has to be anticipated that for the carrying through of a common programme such as the Marshall Plan, to begin with the establishment of a new institution will be required. Alone the expenditure for its establishment and maintenance reduces considerably, as shown by experience, the value of the funds to be distributed and thus also limits the desired stimulating effects in the developing and industrial countries.

The possibly most important shortcoming of the whole concept is indeed to be found in the equation of Europe's situation after World War II with the developing countries' present situation and the similarity of instruments that are to be utilized for the mastering of the economic problems. Decisive for the erroneous estimation is the over estimating of the factor of capital in the development process and the insufficient consideration of complementary factors relevant for development. But precisely the complementary factors play a major role for the ability to absorb capital and for the level of efficiency. The experiences made in this field during 30 years of development policy did obviously not enter into the new Marshall Plan concept.

Which Third World countries shall mainly profit from Marshall Plan funds is also not clear. The favouring of newly industrializing countries whose demand growth can be assessed as high, but which at the same time might be able to substitute with Marshall Plan funds a part of the demand that would have evolved anyway hardly corresponds to the development policy guidelines of most European states. The special support of the least developed countries within the framework of this concept might be impeded by the fact that their main requirements do not harmonise with the supply structure of the highly developed states.

Already the difficulties - as indicated here - make it appear improbable that such a plan can be realized during the next few years, above all the effects on developing countries and industrial states will probably not be as favourable by far as one might think at first sight.

Large-scale Projects of Industrial States

The funds for the financing of infrastructure projects show certain similarities to the Marshall Plans. The most concrete plan of this kind originates from Nakajima who in his world economic situation analysis arrives at the result that the worldwide stagnation and recession cannot be overcome without major impluses from the western nations. Therefore gigantic investment projects are considered necessary. Nakajima recommends the foundation of a special fund to finance multinational public investments within the framework of the industrial nations' development policy - investments that are made for several developing countries simultaneously and to be utilized in common. Positive effects on the developing countries' economy are to follow the stimulation of private economic activities in the industrial states. For instance the utilization of deserts, the construction of high dams and tidal power plants, canals and tunnels as connections between continents belong to the 12 multinational 'super projects' already foreseen.

The financing of this special fund is mainly to be taken over by the USA, Japan, the Federal Republic of Germany and the OPEC states.

The establishment of a new organization independent of the UN is being recommended for guaranteeing an efficient carrying through of the projects.

The proposal of the global infrastructure fund also believes - like the Marshall Plans - the stimulation of the world economy to be possible through the utilization of the relationships of interdependence to the advantage of the industrial and developing countries. But the assumptions on which this proposal is based are not necessarily fulfilled in reality.

The level of the demand in the industrial countries made additionally possible by the realization of these large-scale projects depends firstly on whether the industrial countries really raise these funds additionally or whether they finance the infrastructure fund by a reduction of their other ODA contributions. The consequence of the latter would be a reduction of the expected additional demand by the otherwise usual return flow effect. In the case of an additional provision of the funds the deprivation effect must be balanced nationally against the return flow effect to be expected. To what extent the developing countries actually utilize firms and deliveries from industrial countries for the implementation of projects depends both on their ability to deliver and on the economic policy of the developing countries.

It is also not clear in connection with these proposed large-scale projects if in the developing countries a demand for these measures exists and if they are able to profit genuinely in the long run from these multinational projects. Generally there exists a risk of the formation of enclaves in the case of large-scale projects of this kind - enclaves without integration into the overall economy, with little effect on employment and training and providing a negligible extension of the supply of goods for the mass of the population.

Industrialization Funds

While Marshall Plans and infrastructure measures mostly start with a single big push, others plead for a massive increase of the transfer of resources over a longer period. This is the case for example, for the Global Fund as recommended by UNIDO with an annual lending volume of US $ 15 billion to give industrialization credits to the developing countries. The equity capital - between US $ 75 and US $ 100 - is to be composed of official contributions of the member states. The Western industrial nations and the OPEC members with capital surpluses are mentioned as donors. Differing from the World Bank and the IMF, in the Global Fund the developing countries are to hold the majority in the management and decision making bodies.

The proposal of UNIDO can only be regarded in connection with the numerous demands of different UN organizations for the creation of the New International Economic Order (NIEO). The Global Fund meets without doubt the criterion of a massive transfer, but its dimension will make the raising of capital most problematical. Since funds of such a volume would hardly be provided additionally by the industrial countries, it is to be feared that the utilization of official development assistance (ODA) would be fixed for years.

The deliberations of Jayawardenas form a mixture between the proposals of non-automatic and automatic transfers of resources. Public development aid of European Community countries (EC) should be used to direct the OPEC countries' capital surpluses into the oil importing developing countries. For this purpose a fund is to be established under the administration of the European Investment Bank, which is to issue SDR nominated bonds to the OPEC states. Should the annual oil price increase surpass a certain interest rate, the supply of bonds or the real interest rate will be reduced. Attractive real interest payments on these bonds as well as protection against inflation and exchange rate risks are to be guaranteed by the EC countries. The funds are to be granted as long-term credits and all developing countries with an annual per capita income of under US $ 1,000 to be subsidized. The cost of the subsidies is to be provided by the EC countries without burdening their budgets, by means of the creation of additional SDRs.

Even if the surpluses of OPEC were secured against inflation and exchange rate risks it remains questionable whether the EC would be willing and able to undertake these guarantees. Although the EC would thus be able to secure its mineral oil imports at moderate price increases and could profit from the developing countries' additional demand, the protection against inflation and currency risks appears to be illusionary in view of the strong fluctuations of the individual currencies vis-à-vis the dollar and SDR and the differing inflation rates. The costs arising would probably burden the budgets and thus reduce public aid correspondingly rather than increasing it. The covering of costs by new SDR of the EC countries as mentioned in the proposal, would bring in the link between ODA and SDR by the back door, which hitherto the EC countries have unanimously rejected.

Massive and Automatic Transfer

Link between ODA and SDR

Apart from the discussions concerning the increase of the transfer of resources, proposals are being made which as far as possible regulate the investment funds automatically, independent of individual decisions, as is usual for ODA. Starting points for such an automatism could be the linking of development aid to the creation of additional liquidity within the scope of the international monetary system or the introduction of development aid taxes whose yields would flow to the Third World countries.

Since the introduction of SDR (1967) and the reform efforts of the International Monetary System the developing countries are insisting that the industrial nations, when new SDRs are created, make part of their SDRs directly or indirectly available to the developing countries, over and above their quotas. If the industrial nations were to follow this proposition, the creation of ever-new SDRs would actually lead to a quasi-automatic direction of funds to the developing countries - provided that the world economy's demand for liquidity extended permanently.

The realization of this wish for a link failed so far due simply to the fact that the extensive creation of SDRs in accordance with the developing countries' wishes cannot be guaranteed without a fundamental revision of quotas in the IMF. Should the developing countries receive SDR funds from the industrial states, the latter could easily substitute these SDRs for a part of their ODA and thereby establish as quasi-automatism without increasing their contributions. In addition, frequent and major creations of SDR would increase the risk of an accelerated worldwide inflation with negative effects on industrial and developing countries. The experiences with gold and the reserve currencies have shown that the susceptibility of a monetary system is increased if reserve media have a double function - here as SDRs and development capital.

In spite of the doubts hinted at, there are recurring attempts to connect the idea of a Marshall Plan with the Link. The best known proposal by Küng suggests that additional SDR are either granted for developing countries (DCs) only - excluding industrial nations - or are allocated in accordance with IMF quotas - the industrial states, however, placing their SDRs at the disposal of the DCs free of charge repayment obligations. Since these proposals so far appear simply to be flights of fancy rather than development concepts, the discussion of a massive automatic transfer has unambiguously shifted away from the IMF towards development taxes.

Development taxes

Recently, taxes as an instrument for the raising of additional funds are increasingly demanded in order to make external inflows in the form of ODA independent of annual political decisions by donors and to achieve a better distribution for the developing countries. As an example for a direct tax, a surcharge on the general national income tax has been considered; as an indirect tax, the taxation of international trade.

Generally speaking the economic policy value of these taxes depends to begin with mainly on the extent to which they comply with the target of steadying and increasing the transfer of resources and whether this then actually promotes growth in industrial and developing countries. Moreover, international taxes must also comply with the standards of efficient tax systems, for instance: a just distribution of the tax burden, no impediment of fluctuating markets and a simple low-cost administration.

The presently available investigations into the subject of international taxes show distinctly that the contractive effects for the world economy would be considerable. Besides, there exist so many possibilities of passing on the burdens, that particularly the gain for the poorest countries of the Third World would be highly doubtful. Instead of international taxes, distorting price relations and additionally creating major administrative impediments, the alternative of taxes and tax systems in developing countries might be discussed more extensively.

Summary:

Few Chances of a Massive Transfer

Summarizing the proposals so far considered for a massive transfer of resources with regard to their possible realization and chances of success, it will be seen clearly that their effectiveness depends on the cooperation of numerous factors. But the initiators do not mention this explicitly and possibly underestimate its importance.

Above all the question as to whether the funds are raised additionally has not been satisfactorily answered. They should, namely, in order to show the greatest possible positive economic effect, be additional not only for the DCs, but they should also not cause withdrawal effects compared to other consumptive or investive utilization within the industrial countries themselves. The industrial nations' experiences with development aid during three decades show that the additionality would be relatively improbable. There, an unambiguous tendency exists - because of the shortage of funds for the ODA, conditioned by budget problems - to pay for new tasks out of the corresponding budget items. Thus shifts between the task will probably occur rather than an increase of the capital transfer.

There is not much to support the hypothesis that the application of the funds in the DCs stimulate the donor countries' economy more strongly than a direct utilization at home. This is based firstly on the fact that part of the funds will not be invested effectively regarding growth. In additon there is the competition of DCs and other states for possible orders. This alone advocates a utilization of the capital, in short supply also in the industrial countries, in their own economic area. Besides, it has to be taken into consideration that the structural effects can thus more easily be controlled than with the detour via the DCs or a possible involvement of multilateral institutions.

Apart from the already mentioned institutional and administrative questions and not satisfactorily solved distribution of funds between the DCs, all proposals and plans moreover show the disadvantage, that they allow no statements on the following:

- whether the planned set of instruments is quantitativly sufficient for effecting a lasting stimulation of the world economy;

- over which period the funds would have to be provided regularly in order to guarantee a success of the massive transfer of resources.

The amount of the required capital seems to be more or less arbitrarily fixed in all cases under consideration. The plans do not comply with a critical capital requirement calculation and the development policy principle of 'Aid for Self-aid'. Almost all prognoses up to the year 2000 agree that the DCs register a permanently growing demand for foreign capital, including also official aid contributions. The Marshall Plan and fund contributions, but omit to make statements as to whether the DCs' long-term capital requirements will be reduced owing to the application of these funds or whether they will increasingly become boarders of the industrial nations.

Recovery Programme of the Brandt Commission

We shall deal here, as an example of an increased transfer of resources with new forms, with the second report of the North-South Commission, which shows numerous parallels to the proposals of international organizations and of the non-aligned states. This report is intended to be an immediate programme whose measures are to be part of the agend. of approaching international conferences. It comments inter alia problems such as e.g. the world food situation, energy, trade and negotiation processes. The proposals for financing procedures are particularly relevant in this context.

IMF and World Bank

The report proceeds from the belief that the present problems can primarily be solved by additional financing instruments, that the IMF plays a key role in the mastering of the DC's financial problems. Therefore what is demanded is an expansive policy by increasing the available funds of the IMF by the raising of quotas, new allotments of SDR, acquisition of funds on the capital market and from central banks and by easier conditions regarding IMF credits.

All proposals have the common objective of enabling economic growth through monetary and financial expansion - indeed explicitly regardless of the inflationary effects implicated by such a procedure.

Regarding this - not new - approach, firstly it is to be noted that the abolition of the clear division of tasks between IMF and development institutions implicated by it would be utterly doubtful. The IMF has monetary objectives. Its funds are meant to balance short-term balance of payments problems. Therefore its transactions do not belong to the field of development aid. Gratis grants of SDR would water down this principle, confuse the monetary system and further worldwide inflation and destabilization. Owing to the misallocation of fund often occuring during the recent debt crises, a softening of the conditions of the IMF does not seem to be desirable.

Similar to the situation in the case of the IMF, the proposals for development financing via World Bank and the International Development Association (IDA) can be brought to a common denominator: more money on more generous conditions. The immediate programme envisages the increasing of real IDA funds, the rejection of the graduation of countries, the increase in the share of structural adjustment credits, increased financing of current costs by IDA. Regarding the World Bank, the catalogue of demands is concentrated on those for techniques for the mobilization of additional resources.

Behind these proposals for development financing via the World Bank/IDA the demand for imposing on the North a kind of 'tribute' vis-à-vis the

South with the World Bank serving as instrument, cannot be overheard. This is made clear by the question as to the conditions to be linked with the credits of both institutions. Here it is being stated that the countries of the South must control their economic situation themselves and the World Bank should duly restrain itself regarding conditions.

ODA and Private Capital

In the sphere of ODA an increase and an improved efficiency is vigorously demanded. This comprises the general realization of the 0.7% target (for LDCs and expansion to 0.15%) and a concentration on the poor countries. A realization as quickly as possible of the 0.7% target should not require further comments. After the manyfold promises in the past it appears indispensable, if only for reasons of the credibility of the policy of economic cooperation. Although it remains to be taken into consideration that a rational provision of more ODA is no guarantee for the start or acceleration of the development process, a per cent target does not exist. The effect of an additional capital input depends to a decisive extent on the general economic conditions in the different countries. Here economic policy plays a decisive role. Help from outside can always have only a moderate impact and a flanking function.

In the opinion of the Brandt Commission, the activities of the private sector, especially in the form of direct investments, can play an essential role in mastering underdevelopment. Measures for the mobilization of such capital, the conclusion of a behaviour codex for investors, the introduction of a multilateral guarantee facility, the increasing of international financial cooperation (IFC) funds for the promotion of the utilization of private risk capital and the extension of co-financing facilities are recommended for the immediate programme.

A considerable raising of direct investments would hardly be induced this way. Not international codices of behaviour, but regulations and laws of the country in which investment takes place are decisive for the integration of foreign enterprises. Multilateral measures and incentives cannot achieve anything if the economic policy of individual countries is impeding investments. As private capital from industrial countries is certainly available, everything depends on the DC's economic policies, if they want to attract this capital.

Trade, ECDC and New Funds

In the sector of international trade the Brandt Commission gives high priority to the prevention of a further curbing of world trade by additional protectionist measures. This seems to be justified. The main problem of a liberalization in industrial countries is to be traced back to the fact that the creation of competitive jobs has so far been neglected and this has contributed to the present high unemployment level. Since trade liberalization plays the role of an engine regarding structural change, the industrial nations can take the lead and reduce their protection in the trade sector. The decisive obstruction, being able to assert themselves in international competition, must be overcome by the developing countries themselves. For a period of transition, tariffs and quantitative trade restrictions could be reduced gradually in order to mitigate occurring adjustment problems.

These measures appear to be reasonable. But the industrial nations can contribute to the South-South cooperation to a very limited extent only. The programme proposals for an intensification of the DCs' South-South cooperation refer mainly to a simplification of payments and clearing agreements, extension of financing facilities of the DCs by a Third World Bank, the expansion of the OPEC fund or the stronger participation in regional development banks as well as guarantee programmes for export credits.

They are, however, challenged in connection with the North-South Commission's proposals for a renewed discussion of a World Development Fund. This fund is to be realized as fast as possible within the scope of global UN negotiations. Apart from the problems of global negotiations, to begin with its area of application and its efficiency for the development process should be proved before its consultation and establishment.

In particular it should be fixed more accurately which relationship would exist between the new fund and the planned superfunds of UNCTAD (Common Fund) and of the UNIDO (Global Fund). As long as the danger exists that such institutions would degenerate into self-service stores for uncontrolled programme financing with a permanent obligation to pay on the part of the industrial countries they are to be rejected because of the waste of resources unavoidably connected with this. Underdevelopment cannot be removed by additional funds and more generous credit conditions for the true problem is not lack of capital, but rather capital utilization.

Summary:

No New Leverage

One of the most positive aspects of the Brandt report is to be seen in the drastic description of the intolerable economic situation of more than 500 million people in the Third World. It is also praiseworthy that the authors at the same time emphasise the waste of resources for unproductive and useless armament expenditure. It is not difficult to agree on some of the proposals, in particular the reduction and removal of protectionist measures in the industrialized countries, the necessary increase of ODA funds and private capital transfers, and the intensification of economic and technical cooperation among developing countries.

On the other hand the purport of the report is assistance from outside. The possibilities and the necessity of a change in the economic policies of the developing countries by mobilization of their own resources seem to be underaccentuated. The danger of ongoing destabilization of the world economy by increasing international inflation is underestimated, optimism regarding the efficiency of (new) international organizations and funds exaggerated. Therefore, it seems to be justified to have reservations vis-à-vis the proposed emergency programme as a leverage for the overcoming of the world crisis.

Helmut Schmidt's Prescription

Contrary to the afore-mentioned proposals and concepts, the former Chancellor of the Federal Republic of Germany, Helmut Schmidt, sees the solution of the present economic problems not in a massive transfer of resources but in a joint action of the Western industrialized nations to stabilize and reorganize their economic policies. In his opinion, the reasons for the disaster are mainly the collapse of the Bretton Woods system and the worldwide inflation following the oil price shocks, which was accompanied by a trend towards growing protectionism.

Instead of patent remedies, a coordinated economic policy among industrialized countries with similar objectives is proposed. The list of countries to be involved includes the USA, Canada, Japan, Great Britain, France, Italy, the Federal Republic of Germany, the Netherlands, Norway, Austria and Switzerland.

The most important requirements are:

- to get real interest rates down;
- to avoid excessive creation of international liquidity;
- to ease the adjustment process of national economies to structural changes in the world economy; and
- to strengthen the world's financial system, which also includes the improvement of the opportunities of the IMF and World Bank for surveillance of and influence on the economic policies of debtor countries and creditors.

The increase of ODA in real terms is also mentioned, but it is emphasized that not aid but recovery in the industrial countries is the essential prerequisite for improvement in the Third World.

An expansive policy is suggested for Great Britain, Japan, the Federal Republic of Germany, the Netherlands, Norway, Austria and Switzerland, while the USA, Canada, France and Italy should concentrate more on consolidation and the fight against inflation. The coordinated action of these countries should safeguard a stable world monetary system. Credit restriction should be avoided and trade barriers abolished. Protectionism is identified by Schmidt as "escape into suicide".

The whole prescription shows clearly that important representatives of the industrialized countries do not believe in the massive transfer of resources as a strategy to overcome the world crisis. They do not deny interdependent relations between North and South, but they see the main starting point in their own countries. In so far as this approach is similar to the old locomotive strategy, in which the industrialized countries are responsible for economic recovery and have the task of pulling the developing countries from poverty to economic growth.

The advantage of the proposal is its comprehensive character. It is not concentrated on one measure as a panacea, but on the whole bunch of economic tools. Therefore it seems to be likely that a concept like this can play an important role at the summit of Williamsburg and that it will get support by the majority of Western countries.

This must not burden the North-South Dialogue, but it may put other accents on the measures and steps envisaged for the negotiations. It can be expected that industrialized nations will insist more on:

- the need for their own economies to recover first;
- measures and mechanisms, which not only support the Third World and in no case impede the recovery of the North; abd
- stronger economic conditions for ODA and private transfers because the benefits of capital allocation in developing countries will always be compared with the utilization of these means at home.

Outlook

An efficient and long-lasting recovery seems only to be possible if the industrialized countries make every effort to stabilize and to revive their economies. The requirements for a new world-wide growth process are a free international trade and financing system as well as efficient economic policies in developing and developed countries. The experience of the past shows, however, that the realization of these prerequisites is a very difficult task. There is a considerable - nearly insurmountable - difference between theory and practice and between lip service in conferences and real political action.

To improve the basis for a new worldwide upswing to prosperity a lot of negotiations and moral suasion on all sides will be necessary - otherwise recession and stagnation will continue.

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STRATEGIES AND POLICIES FOR INDUSTRIAL DEVELOPMENT: SOME OBSERVATIONS ON THE INDIAN EXPERIENCE by S.S. Marathe*

In recent years rapid industrialization has been accepted as a major objective by most developing countries. At the UNIDO Conference held in Lima, Peru, in 1975 it was accepted that the goal should be to raise the share of developing countries in the world manufacturing output from about 7% in 1973 to at least 25% by the turn of the century. Industrialization has been accepted by all countries in the Third World as an important instrument for the structural transformation of these countries, for providing inputs for the growth of modern and scientific agriculture and for higher productivity and reduced technological dependence.

Since 1950 Indian industrial production has increased at an annual average rate of around 6%. The industrial base has been greatly diversified and there has been considerable growth in the scientific, technical and managerial skills. The country is by now more or less self-sufficient in meeting its requirements of industrial consumer goods and also has a fairly large diversified capital goods industry. It is generally accepted that India has now the capacity to plan, design, set up and commission new plants for a wide range of industries including sugar, cement, paper, steel, heavy electricals, machine tools and drugs and pharmaceuticals.

Although India's achievements in the field of industry in the last three decades are by no means insignificant, there have also been some important shortcomings and failures. The rates of growth of industry in India have been significantly lower than in some other developing countries including large economies such as China and Brazil, and also countries like the Republic of Korea. Some of the traditional industries which still have a major place in the industrial structure such as textiles have languished and become outdated resulting in a decline in their competitiveness in the world markets. In many cases the newer industries particularly in the field of chemicals operate on the basis of uneconomical size plants and consequently are high cost producers. Indian industry has tended to operate for too long in a highly sheltered domestic market in which because of high tariffs and internal licensing procedures, normal competitive pressures for cost reduction and improvement of quality have been relatively weak. Most importantly, the modern industrial sector in

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* Mr. S.S. Marathe, Former Secretary, Government of India, Ministry of Industry.

India has not grown fast enough to make any significant impact in terms of new employment opportunities.

The fragmentation of industrial capacities, the strong pull of the protected domestic market and the absence of competitive pressures for reduction in costs and improvement in quality have been major impediments to the growth of exports. It is not without significance that countries such as the Republic of Korea which started industries like shipbuilding, heavy engineering and electronics around the same time or in some cases even later than India have emerged as major exporters. In the field of science and technology, although India has an impressive infrastructure of research institutions and a large reservoir of personnel, the pace of technical progress and increases in productivity in Indian industry have not generally been rapid enough. The linkages between institutions and agencies involved in R and D and users of technology have been weak and with a few exceptions, industrial units have not placed sufficient emphasis on evolving, adapting and upgrading technologies. In consequence, technological obsolescence is now fairly common in several important sectors of modern industry in India.

These are major weaknesses which reflect, in retrospect, the limitations or failures of the strategies and policies for industrial development pursued over the last thirty years or so. It is useful and necessary to examine the more important areas of failure (or inadequate success) of policies, notwithstanding the fact that India's achievements in the industrial field during the period are indeed very significant.

A critical review of the Indian experience could have some lessons for other developing countries although, it has to be recognized, that India is in many ways a very special case which has no exact parallel among the developing countries. A poor country but with better resource endowments, including human resources and infrastructural base, India had the advantage of starting after independence at a level which was not common amongst the newly independent coutries. For instance, even before independence India had a nucleus of an industrial base (e.g. steel, coal, textiles and some engineering and fabrication capacity) and an infrastructure of railways, roads, ports, as well as the institutional structure needed for industrial development (including commercial banks and stock exchanges).

In many parts of India, there was also a fairly dynamic entrepreneurial class and also a Western educated middle class of professionals like doctors, lawyers, chargered accountants. It had a well established and highly competent senior Civil Service which was largely Indian. There was also some tradition of Parliamentary Democracy with strong parties and leaders with a mass base.

Not many countries could claim these advantages, but curiously, some of these strengths themselves have perhaps become sources of weakness over the last thirty years. For instance, in India where bureaucracy was traditionally dominated by the generalist administration, any expert knowledge of problems of modern industry was not often available in administrative positions which were involved in decision making pertaining to industry. Similarly, the inevitable march of democratic progress in poor and predominantly rural economy also meant that political power increasingly passed into the hands of people who had little familiarity with the complex issues involved in modern industrial development. The cultural values inherited by the educated middle class did not place any emphasis on entrepreneurship or inventiveness and there has been in many parts of the country an undue stress on security, with the result that amongst the educated classes there are far more employment seekers than persons who are willing and able to get into activities which will generate employment.

The Indian experience in respect of industrial development can particularly be divided into two parts: the period up to 1965-1966 and the period since then. The earlier period was one of fairly rapid and sustained increase in industrial output, accompanied by diversification of industrial activity and strengthening of the institutional framework needed for industrial development. This period saw the creation of new financial institutions to support new industry, establishment of a number of centers for research and for training of technologists and managers. The second period witnessed some further deepening of the industrial structure and some further strengthening of the infrastructure, particularly in terms of development of human resources and financial institutions. But the period also saw a slowing down of the rate of growth of industrial output. Value added in the industrial sector - which averaged 7.6% during

1959-1960 to 1965-1966 - declined to 5.6% per annum during the period 1966-1967 to 1978-1979.

A recent study by the Center for Monitoring Indian Economy, Bombay, estimates that during the eleven year period between 1970 and 1981, capacity in the manufacturing industries expanded by about 95%, i.e. an average rate of 6.3% p.a.; but during the same period the production of manufacturing industry increased by 83% i.e. an average of 5.3% p.a. In the result the rate of utilization of capacity declined from about 85% in 1970 to 76% in 1981. While calculations of capacity are fraught with conceptual and statistical difficulties, it is generally accepted that, for various reasons, Indian industry in the late 1970s suffered a setback in terms of utilization of productive capacity.

Several explanations have been offered for this in the course of the extensive debate on the causes of this deceleration. Among the reasons suggested by a number of economists, mention may be made of the slower growth of agriculture, diminishing scope for import substitution, changes in terms of trade in favour of agriculture and to the detriment of industry, and the general deterioration in both the efficiency of the infrastructure such as railways, electricity generation and distribution, ports, etc., and in the work ethic in the economy.

While this is a complex issue, a recent unpublished study suggests that by far the most significant reason for the deceleration in industrial growth was the slow down in the growth of public investment. This slow down led to a weakening of the demand stimulus not only directly but also indirectly in terms of deceleration of private investment as well. A further consequence of the inadequate public investment was to create supply shortages especially on account of the slower growth of infrastructure.

While there exists statistical evidence to support this argument, there have also been other factors mentioned earlier which have contributed to the flattening out of the industrial growth. Altogether it does appear plausible that while India's domestic savings rate of about 22% of Gross Domestic Product is fairly impressive, for several reasons it will be necessary to increase the rate of domestic savings if higher rates of investment in industry are to be sustained.

An important consideration is that the change in relative prices of capital goods since the early 1970s tends to exaggerate the extent of increase in investment, in real terms, which can be financed with current savings rates.

The deterioration in India's terms of trade consequent upon the oil price increases in the 1970s has also had the same consequence. It has also to be recognised that higher energy costs and consequent change in relative prices of inputs tend to render obsolescent some of the processes and industrial capital stock, necessitating additional investment. Yet another reason why a higher rate of savings is a precondition for industrial growth is that in a country like India the agricultural strategy itself is fairly capital intensive requiring large investments in the irrigation, power, fertilizers, etc. Given the inescapable priority for agriculture, unless saving rates are further increased, there will have to be some cut-back in the investments in the industrial sector.

Similarly, India will need to make up some of the lags in social overhead capital such as supply of safe drinking water in rural and urban areas, schools, hospitals and minimum standards of infrastructure in urban communities. These requirements of social overheads in terms of capital investments cannot be ignored indefinitely except at the risk of social and political instability, but investments in social overheads would lead to a diminution of resources available for investment in industry unless there is a step up in the overall rate of savings. It is in this broader context of a higher rate of savings and investment that one must look at some of the lessons of experience in the management of industrial change during the last three decades.

In a country like India with a democracy based on adult franchise, policies of any elected government will inevitably have to be left of centre - and this in turn means that the historical role of accumulation of capital performed by the private sector in a free enterprise system will have to be circumscribed. In order to ensure an adequate rate of growth, the building up of a strong and efficient public sector is seen as a precondition for growth and modernization of the economy. The commanding heights of the economy have therefore been assigned to the public sector and massive resources invested. However, any objective assessment of the performance of the public sector would suggest that all is not well with the public sector. At the commanding heights of the economy, coal, steel, mines, electric power, railway transport, tele-communications, banking and insurance are all in public sector, and if they are all inefficient in varying degrees the rest of the economy - which must rely on the inputs they provide - will necessarily suffer.

It has also been argued that the expansion of the public sector into fields which have no relevance to the commanding heights of the economy - which was the original intention of policy - has been a major hindrance to growth of the economy. The Central Government, to a small extent, but the State Governments to a very large extent, have entered fields of economic activity which have little justification in terms of the State controlling the commanding heights of the economy. In a recent address Governor R.K. Nehru, a distinguished civil servant and presently the Governor of Jammu and Kashmir, stated that:

> "The public sector now is engaged in an incredible variety of industrial and commercial enterprises such as scooters, rubber goods, glass, bread, footwear, tea, textiles, hotels and beverages - both alcoholic and other. The reason for this extension has been neither the conversion of our politicians to the philosophy of socialism nor their desire to enhance the revenues of the State. It is simply that it has become common practice for public sector enterprises, particularly in the States, to be made into mechanisms to provide powerful politicians, who cannot be accommodated as Ministers, with salaries, perquisites, patronage and opportunities to make money through corruption."

A major area of concern and action in the coming years in India has to be the management of public enterprises and particularly the need to ensure proper accountability without inhibiting initiative. Unless the public sector can function in an atmosphere of greater autonomy and also an environment in which success can be rewarded and slackness punished, the large volume of nation's resources invested in these enterprises will not yield a reasonable return. If the returns on past investments are inadequate the public sector cannot perform its role as accumulator of capital.

Another area which has more recently become a major source of concern is industrial relations. The problems here are complex because in a poor country with chronic and pervasive unemployment and underemployment, employment in the modern sector of industry, banking, and other services will always remain a preferred employment. The differential between wage rates in the rest of the economy and in the organized modern sector, however, can become so large that it becomes a source of social tensions and also creates pressures for employment of excess manpower in organized industry and allied activities.

The growth of trade unionism, which over the years has been supported through legislation and otherwise, is no doubt a desirable and also unavoidable feature in the process of modernization of the economy. But perhaps a stage has come when to have a close look at the structure and legislative framework for trade unionism. One of the undesirable features of the present day trade unionism is permeation by political parties of trade unions so that industrial unrest is often caused not because labour had genuine grievances but because political parties or individual political leaders create this unrest for purposes totally unconnected with the welfare of labour. The culture of trade unionism in India tends to concentrate on demands for higher wage earnings without accepting any kind of nexus between productivity and wage levels. In fact it is not uncommon to see trade unions and their leaders flatly refusing to accept any such nexus.

A disturbing consequnce of this is that the absorption of the labour force in modern industry is not increasing. Thus over a period of twenty years since 1961 the total factory employment rose from 3.9 million to only 6.7 million. While it is recognized that the labour absorption potential of the modern segmented industry is necessarily limited in comparison with the traditional or household sector, there is an increasing evidence that the management's fear or reluctance to manage large work forces often leads to excessive or premature mechanization of various industrial processes.

It also discourages active interest in devising labour-intensive technologies which would be more in consonance with the basic factor endowments in a country with a large and growing population. In the long run a viable industrial structure will need a reorientation of attitudes in regard to necessary or appropriate wage differentials between the large mass of unorganized or inadequately organized labour force in the traditional sectors including agriculture and the privileged minority of organized labour in the modern sector of industry and tertiary activities.

Another area where the experience of the last two or three decades suggests some rethinking is necessary is in the field of the application of science and technology in order to sustain an adequate rate of growth of productivity. India has by now an impressive infrastructure of science and technology. But there are certain disturbing signs which are already evident. Although the country has statistically the third largest reservoir of technically qualified manpower in the world, there is no widespread acceptance of the scientific culture.

The quality of technical or technological competence varies greatly between average level prevailing in most colleges and universities, and the calibre and quality of the training provided in leading institutions or centers of excellence. Indeed, there is some ground to believe that the quality of the training provided in these centers of excellence is somewhat out of alignment with the country's current needs. The result is that in recent years, there has been a fairly sizeable exodus of such trained manpower mostly to developed countries where opportunities for employing their training and skills are greater.

A major drawback in Indian approach to science and technology has been its lack of focus towards meeting, through the use of scientific knowledge and modern technology, the urgent needs of the community. The Technology Policy Statement issued by the Department of Science and Technology states:

> "Technology must suit local needs and to make an impact on the lives of ordinary citizens, must give constant thoughts to even small improvements which could give better and more cost-effective use of exisitng materials and methods of work."

But, except to a very limited extent, this has not so far happened.

The essential problem here is that the emphasis on scientific research has been greater than on technology and its adaptation to Indian conditions. The links between know-how generating sectors and the know-how consuming sectors have been rather weak; and in years to come greater emphasis and attention will have to be given to establish closer links between R and D facilities in the country and the end-users including the modern industrial sector.

Earlier in this paper, emphasis has been placed on the need to have a higher rate of savings and investment. But equally necessary or perhaps even more crucial is the question of efficient use of the resources both in the public and in the private sector. It is regretable but true that over the last thirty years the investment rate in India has increased but the trend rate of growth of the economy has shown no significant change. While the gross investment rate has more than doubled from around 10-11% in the 1950s, the trend rate of growth of output has remained stable around 3 and 1/2% per annum. The country has had the singular distinction of having an investment rate which is more akin to that of a middle-income developing country like Brazil, and yet have a growth rate low, even by the standards of many low-income countries.

To some extent the worsening of the capital output ratio is attributable to the stage of development of the economy. When large amounts have to be invested in irrigation, power and railways and this is virtually unavoidable in the earlier phases of development strategy and there is bound to be an increase in the capital output ratio. At the same time, however, at least a part of the rise in capital output ratios in particular sectors is clearly attributable to deterioration in efficiency. Detailed studies conducted by internal and external agencies show that there is considerable scope for improving the returns to investment in major areas such as power, coal, railways and the working of irrigation systems. As investments in these sectors constitute about a quarter of the total investment in the country, the efficiency with which these investments are handled will have a significant impact on the efficiency of the economic system and the growth rate of the industrial sector.

The problem of raising the general productivity of the system is, of course, a large and complex one. It is not, as is often made out, simply a question of large and inefficient government. No doubt, the very large and pervasive role that governments-central, state and local and quasi-governmental agencies have in a society like in India casts a special responsibility on them to manage effectively and efficiently. In particular, in a fast changing environment, national and international, it is of crucial importance that governmental organizational structures and procedures are suited for the tasks they are required to perform. There is as much need for modern management techniques in government as anywhere else. An effective management information system and also organizational and procedural changes which will substantially reduce response time in terms of formulation and implementation of policies is also an area which needs careful consideration.

But the general productivity of a system does not depend only on the state apparatus and how it works; nor, indeed, should productivity or efficiency be the sole criterion for judging a system. As Lewis Mumford pointed out long ago, "The final test of an economic system is not the tonnes of iron and steel, the tanks of oil or the miles of textiles it produces. The final test lies in the ultimate products - the sort of men and women it nurtures and the order, beauty and sanity of their communities".

PAST AND FUTURE STRATEGIES AND POLICIES FOR DEVELOPING COUNTRIES' INDUSTRIALIZATION AND THE CURRENT INTERNATIONAL TRENDS AND THEIR IMPLICATIONS by Shozo Morita*

DEEPENING OF ECONOMIC DIFFICULTIES IN THE DEVELOPING COUNTRIES

Amidst the difficult circumstances of the prolonged stagnation of the world economy, the developing economies suffered from a marked slowdown in growth of their gross national product (GNP), which fell from 5% in 1980 to 2.2% in 1981. (The average growth rate from 1980 to 1970 and from 1970 to 1980 is 5.8% and 5.6% respectively).

International trade also remained sluggish for these countries with total exports decreasing by 1.2% in value from the previous year and total imports increasing by 9.3%, a substantial drop in growth rate, compared with 1980. Such a slump in export, combined with the burden of increased interest payments on their loans due to high interest rate, upset even further the current balances of the developing countries, in particular of the non-oil producers.

MEASURES TO BE CONSIDERED FOR THE IMPROVEMENT OF THE SITUATION

There is clear correlation between the growth performance of the developed and developing economies. Economies of developing countries progress when the developed countries economies are prospering. They stop growing when the developed countries stagnate, and vice versa. Since the developing economies are susceptible to fluctuations in the industrial world, the importance of the revitalization of the industrial world should be recognized.

On the other hand, decline of income in the developing countries means decline of demand for exports from developed countries. Economic assistance, which plays an important role in economic development, should be strengthened considering the aspect of its having an effect for new demand growth.

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* Mr. Shozo Morita, Research Adviser, International Development Center of Japan

ECONOMIC DEVELOPMENT IN THE DEVELOPING COUTRIES SINCE 1960s

Development and Industrialization

Under the increasing polarization of the developing economies into three groups - oil-producing, non-oil producing, newly industrializing countries (NICs) - industrialization has played a crucial role among those countries which achieved rapid growth throughout the 1960s and 1970s.

The reasons are as follows:

- Industrial production in a particular field has broad effect in the related fields and leads ultimately to greater employment opportunities;
- Industrial products generally enjoy a high income elasticity of demand, enabling rapid expansion of the market;
- Productivity in the manufacturing sector is higher than in other sectors; and
- Policies for the education and training of the workers indispensable for industrialization contribute to human resource development and improvement in the society.

Substructure Sustaining Industrialization

Main factors that provide the driving force for industrialization in the developing countries are:

- Securing a number of trained manpower who can maintain industrialization;
- Construction of effective infrastructures and utilities for the industries; and
- Steady expansion of agriculture.

FUTURE ECONOMIC AND SOCIAL DEVELOPMENT IN THE DEVELOPING COUNTRIES AND ECONOMIC COOPERATION

Bearing in mind the above analysis and past experience of development in the industrialized countries, following points should be taken into consideration for the economic and social developments.

Establishment of a comprehensive and scientific study for the economic and social development

In promoting economic and social development, an ambitious yet realistic plan should be formulated with due consideration given to the pace of development and balance between the various sectors and regions. Developed countries should contribute to the transfer of their experience and know-how through the collaboration for scientific data-collecting, its processing and economic planning, which is fundamental for development.

Extensive manpower training

In order to lay the groundwork for the formation of the human resources that are critical for econmic growth, it is essential that an appropriate educational system should be established throughout the country and high rates of attendance attained; and that relevant technologies be imported and adapted to local needs. Furthermore, for the continuous economic growth of the developing countries, it is necessary for them to educate scientists and engineers so that they can ultimately develop their own technologies suitable to the local conditions. In this respect, developed countries should enlarge their cooperation in the area of human resources development in the developing countries and make further efforts for research cooperation.

Construction of infrastructure

Infrastructure, which is an indispensable physical foundation for economic and social advancement of the developing countries, should be built in accordance with plans for industrial development - keeping in mind that infrastructure is in itself only profitable and can bring it true value only when it is effectively combined with industrial development. It should be also stressed that these developments be consistent with the general economic and social development plan.

Development of agriculture

The encouragement of the growth of agriculture, which constitutes a significant sector in a majority of developing countries, brings increased food production and additional increases of domestic demand for industrial products. It also plays an important role in the smooth transfer of the work force to the industrial sector. The stabilization of food prices, the procurement of foreign currency by exporting agro-products, and the cancellation of the gap in living standards between urban and rural communities. The importance of agro-business for the industrial development must also be recognized by the developing countries.

With the introduction of a variety of high-yield crops (Green Revolution) and irrigation and drainage systems, agriculture in developing countries, in particular of the Southeast Asia, has made remarkable progress. However, a great number of problems remain unresolved, toward which the industrial nations can extend constructive assistance: the development of agriculture technology for the improvement of yield; the comprehensive development of agriculture production base and rural communities, with emphasis on providing an integrated irrigation and drainage system; the supply of electricity; the development of distribution facilities for agro-products; the increase in food production for higher self-sufficiency; and the conversion to the crops which enjoy higher prices and demand worldwide.

Development of alternative energy and conservation

It is expected that future industrialization in the developing countries will generate rapid increases in energy consumption. In order to avoid being trapped in the pit of a worsening balance of payment position, attention must be paid to the solution of energy problems. In this regard, conservation technology and new energy developments must be pursued strenuously for those countries.

Balanced industrial development

It should be noted that industrialization takes a long time and brings with it changes in the social structure. Excessively rapid development might cause social and political disturbances. Industrialization must be consistent with each country's particular condition and needs. It seems important that due consideration should be given to the following points:

- Balance between large-scale and small and medium-scale industries. Industrialization should be promoted in such a manner as to utilize most effectively the different advantages of the large-scale and small- and medium-scale industries. Leaning towards either one in economic planning might retard the efficient distribution of resources and the healthy development of the economy. Therefore, the developed countries should see that their assistance promotes an appropriate balance between the large-scale and small- and medium-scale industries;

- Introduction of industries consistent with development stage. In the process of pushing forward with industrialization, the development stage achieved in those countries should be taken into account: size of domestic market, capital formation and technology level;

- From light industry to heavy and/or technology intensive industry;

- From import substitution to export-oriented industries; and

- Introduction of new industries should be in accordance with the current development level in the country concerned.

These are not new, novel ideas, but it is appropriate that light should be thrown on these traditional ideas for the steady and certain progress.

Importance of renovation and improvement of existing industrial plants and infrastructures

The importance of overcoming bottlenecks in management, maintenance and repair of physical facilities should be also stressed in order to obtain optimal use of existing industrial plants and infrastructures. Particularly, considering the current international economic environment, this type of renovation and improvement project aimed at existing facilities is quite timely since it is expected to yield maximum benefits with minimal capital inputs.

Free trade

Countries at the initial stages of industrialization may be justified in providing assistance for the infant industries. But it must be kept in mind that free trade is the source of world prosperity.

THE DEEPENING CONFLICT: NORTH-SOUTH TRADE AND INVESTMENT RELATIONS by Richard Newfarmer*

INTRODUCTION

The 1970s and 1980s have ushered in an era of world-wide "structural adjustment." An important element of these changes is the expansion of exports from developing countries, auguring a new division of labour in international trade. Growth in world trade, following the pattern set in the 1950s, averaged a healthy 5.8% in the 1970-80 period. However, with the world-wide recession at the close of the decade, growth in the volume of trade slowed to 2.3% in 1980, and was -1.0% in 1981, the first shrinkage in trade since 1945 (UNCTAD, 1982: 218).

The developing countries increased their share of world exports from 20.4% in 1963 to 27.2% in 1981 (Table 1). Most of the increase was accounted for by the doubling of the export share of oil-exporting countries (from 7.3% in 1973 to 13.7% in 1981). But the non-oil developing countries also gained; their share rose from 11.9% in 1973 to 13.5% in 1981. In other words, developing countries as a group outperformed the quite respectable world-wide average growth in the international export market during the 1970s.

Their performance was doubly important because it marked an increase in the sectoral diversification of exports. The developing country share of manufactured exports rose from 6.7% in 1973 to 8.7% in 1980; this implied that manufactures as a share of the commodity composition of their exports rose from 33.0% to 38.8% during the same period (Table 2). Concomitantly, the share of primary products in the exports of developing countries fell.

Many of the gains of developing countries were in industries traditionally associated with developed countries: iron and steel, chemicals, engineering products, and consumer goods (see UNCTAD, 1982: 72, 73) as well as in more traditional labour-intensive goods. In fact, the contribution of "mature" industries (those requiring a large number of unskilled workers) and "standardized" industries (those with a low rate of product development) to the growth of exports of manufactures was quite large - over one-thrid in the case of all

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* Mr. Richard Newfarmer, Senior Fellow, Director of Trade and Industrial Policy, Overseas Development Council, Washington, D.C., U.S.A.

Table 1

Production, Commodity, and Regional Composition of World Trade, 1963 and 1973–81

(In billions of U.S. dollars and per cent)

	1963	1973	1974	1975	1976	1977	1978	1979	1980	1981[1]
Growth of world output (in per cent)	5.4	8.7	2.8	−1.1	7.1	4.6	4.4	3.7	1.0	1.0
World exports (in billions of U.S. dollars)	154	574	836	873	991	1,125	1,303	1,638	2,000	1,970
					(Percentage share in world exports)					
Agricultural products	29.0	21.0	18.0	17.0	17.0	16.0	16.0	16.0	15.0	. . .
Nonfuel minerals	18.0	6.0	6.0	5.0	4.0	4.0	4.0	4.0	5.0	. . .
Fuels		11.0	20.0	19.0	20.0	19.0	17.0	20.0	24.0	. . .
Manufactures	53.0	61.0	55.0	57.0	57.0	58.0	60.0	58.0	55.0	. . .
Growth of volume of world exports	7.1	11.1	3.5	−2.9	11.2	4.3	5.6	5.6	1.0	—
Regional composition of world trade[2]					*(Percentage share in total world exports and imports)*					
Industrial countries										
Exports	64.1	68.0	63.0	63.8	62.7	62.6	64.9	63.2	61.7	61.7
Imports	64.2	69.6	69.0	64.7	66.5	65.8	65.3	66.9	67.6	64.8
Oil exporting developing countries										
Exports	20.4	7.3	13.0	12.9	13.6	13.2	11.2	13.0	14.8	13.7
Imports	20.9	3.6	4.5	6.6	6.6	7.4	7.6	6.1	6.6	7.6
Non-oil exporting developing countries										
Exports		11.9	12.0	11.3	12.0	12.6	12.2	12.6	12.5	13.5
Imports		14.5	16.0	15.8	14.9	15.3	15.5	16.2	15.1	16.3
Eastern trading countries										
Exports	12.2	10.0	9.0	9.8	9.5	9.6	9.7	9.3	8.8	9.1
Imports	11.7	9.9	9.0	10.5	9.7	9.4	9.7	9.0	8.5	8.8

Sources: GATT, *International Trade, 1969, 1977/78,* and *1980/81*, and GATT, Press Release, March 23, 1982.

[1] Estimates.

[2] For regional classifications, see Appendix II.

Source: Anjaria, et al., 1982.

Table 2

Non-Oil Exporting Developing Countries: Composition of Trade and Share in World Trade, 1973–80

(In per cent and billions of U.S. dollars)

Products	Exports								Imports							
	1973	1974	1975	1976	1977	1978	1979	1980[1]	1973	1974	1975	1976	1977	1978	1979	1980[1]
Commodity composition																
Primary products	64.8	68.3	67.2	63.6	62.1	58.5	58.2	60.8	35.3	41.5	41.1	40.9	39.3	36.5	38.8	41.7
Food	*32.3*	*29.6*	*31.6*	*29.8*	*31.0*	*29.1*	*26.3*	. . .	*15.7*	*14.3*	*14.4*	*12.7*	*11.9*	*12.3*	*11.9*	. . .
Raw materials	*11.3*	*9.1*	*7.7*	*7.7*	*7.4*	*7.2*	*7.7*	. . .	*5.3*	*3.9*	*3.3*	*3.8*	*3.9*	*3.9*	*3.8*	. . .
Other	*21.2*	*29.6*	*28.4*	*26.1*	*23.7*	*22.2*	*24.2*	. . .	*14.3*	*23.3*	*23.4*	*24.4*	*23.5*	*20.3*	*23.1*	. . .
Manufactured products	33.9	30.4	31.6	35.4	35.1	39.8	39.7	38.8	60.4	55.5	56.5	55.1	55.5	60.0	58.0	55.6
Semimanufactures	*9.0*	*8.1*	*8.0*	*8.2*	*8.3*	*9.8*	*9.9*	. . .	*19.3*	*20.1*	*18.0*	*16.5*	*16.3*	*18.2*	*18.1*	. . .
Engineering products	*8.7*	*8.5*	*9.5*	*10.5*	*11.1*	*12.8*	*13.2*	. . .	*32.6*	*28.8*	*32.2*	*32.1*	*32.1*	*34.4*	*32.8*	. . .
Textiles	*5.9*	*4.9*	*4.5*	*5.0*	*4.4*	*4.8*	*4.8*	. . .	*4.7*	*3.7*	*3.2*	*3.4*	*3.5*	*3.6*	*3.4*	. . .
Clothing	*5.6*	*4.8*	*5.4*	*6.7*	*6.2*	*6.6*	*6.1*	. . .	*1.1*	*0.8*	*0.8*	*0.8*	*0.9*	*1.0*	*0.9*	. . .
Other consumer goods	*4.7*	*3.9*	*4.2*	*5.1*	*5.2*	*5.9*	*5.6*	. . .	*2.7*	*2.1*	*2.2*	*2.3*	*2.6*	*2.9*	*2.8*	. . .
Other	1.3	1.3	1.2	0.9	2.8	1.7	2.1	0.4	4.3	3.0	2.4	4.0	5.2	3.5	3.2	2.7
Total (in billions of U.S. dollars)	**68.3**	**100.3**	**98.8**	**119.1**	**141.8**	**158.7**	**205.7**	**245.0**	**82.9**	**131.8**	**138.3**	**148.2**	**172.4**	**201.8**	**265.4**	**335.0**
Share in world trade																
Primary products	20.4	18.8	18.5	18.7	19.4	18.9	18.1	17.4	13.5	15.1	15.7	15.2	14.9	15.0	15.5	16.3
Food	*25.5*	*27.5*	*27.3*	*28.8*	*31.2*	*28.4*	*27.7*	. . .	*15.1*	*17.4*	*17.4*	*15.9*	*14.5*	*15.3*	*16.1*	. . .
Raw materials	*22.2*	*22.7*	*20.6*	*21.5*	*22.4*	*21.9*	*21.1*	. . .	*12.7*	*12.9*	*13.7*	*13.3*	*14.4*	*15.0*	*14.7*	. . .
Other	*15.2*	*11.8*	*11.2*	*11.0*	*12.2*	*12.8*	*12.5*	. . .	*12.4*	*14.3*	*15.0*	*15.1*	*15.2*	*14.8*	*15.3*	. . .
Manufactured products	6.7	6.6	6.3	7.4	7.7	8.0	8.6	8.7	14.4	16.0	15.6	14.4	14.8	15.4	16.3	17.1
Semimanufactures	*6.2*	*5.6*	*5.4*	*6.1*	*6.5*	*7.0*	*7.2*	. . .	*16.1*	*17.8*	*17.0*	*15.1*	*15.6*	*16.4*	*17.0*	. . .
Engineering products	*3.1*	*3.6*	*3.4*	*3.9*	*4.3*	*4.6*	*5.3*	. . .	*14.4*	*16.1*	*15.9*	*15.0*	*15.2*	*15.8*	*17.1*	. . .
Textiles	*17.3*	*17.6*	*16.9*	*19.2*	*18.5*	*18.8*	*19.9*	. . .	*16.8*	*17.2*	*16.9*	*16.8*	*17.8*	*17.9*	*18.2*	. . .
Clothing	*30.3*	*31.9*	*32.3*	*38.8*	*37.1*	*36.9*	*36.4*	. . .	*7.1*	*7.2*	*6.2*	*5.6*	*6.6*	*6.9*	*7.1*	. . .
Other consumer goods	*13.1*	*13.0*	*13.4*	*15.8*	*15.8*	*16.2*	*16.3*	. . .	*9.1*	*9.6*	*10.0*	*9.9*	*9.7*	*10.1*	*10.5*	. . .

Source: GATT, *International Trade, 1977/78, 1978/79, 1979/80,* and *1980/81.*

[1] Provisional figures.

Source: Anjaria, et al., 1982.

developing countries and nearly one-half in the newly industrializing countries. Much of the gain within these industries was based in the labour-intensive branches as the theory of comparative advantage would indicate; however, developing countries in these categories rose from less than 1% in 1963 to over 8% in 1980 (UNCTAD, 1982: 83).

The best performers in the non-traditional export categories, including the export of manufactures, were the newly industrializing countries. The expansion of exports from these countries was dramatic (Table 3). Taiwan Province increased its exports nearly fourfold between 1973 and 1977, the Republic of Korea fivefold, and Brazil nearly that rapidly. By 1975, a significant share of the output of these countries' manufactured exports was in capital goods and consumer engineering goods (Table 4).

The Specter of Protectionism

Despite the impressive accomplishments of developing countries in the expansion of their world market shares, several important problems continue to plague poor regions. First, the progress in the export of manufactures has been confined to a relatively small handful of countries; a great majority of nations remain dependent on traditional primary exports. Second, many of these countries are insufficiently diversified and dependent upon only one or two major commodity exports. Finally, the price of non-oil primary commodities continues to fluctuate dramatically. For example, in the nine-year period after 1972 the prices experienced annual percentage changes ranging from positive 53.2% to negative 18.2% (IMF Annual Report, 1982: 15).

These problems are difficult enough, but new ominous clouds have begun to appear on the trading horizon. Trade volumes have fluctuated markedly and around a trend line significantly below the previous period. From 1963 to 1973, trade increased by 8.5% annually. This rate was cut in half for the 1974-80 period. Then in 1981 and 1982, growth in world trade fell to below zero. The global economic stagnation after 1979 has contributed

Table 3

NIC Manufactured Exports, 1973-9 (billion US$)

Country	1973 $	1979 $		1979+1973
Taiwan Province	3.8	14.1		3.7
Republic of Korea	2.7	13.4		5.0
Hong Kong	3.6[a]	13.2		3.7
Singapore	1.6	6.4		4.0
Brazil	1.2	5.6		4.7
Mexico	1.5	3.2[b]	(1977)	
Argentina	0.7	1.6	(1978)	
India	1.6	3.4	(1977)	
Global total	17.8			

a/ Excludes re-exports (Hong Kong).

b/ Exports SITC 5 to 8 (minus 68) for 1977 for Mexico are $1.2 billion. These tables exclude imports into free zones in Mexico and exports from bonded factories, mostly to the USA. The value of this export trade was over US $2 billion in 1977 (UN, 1980, country notes for Mexico, p.24)

Sources:

1973: Keesing, 1979a, annex B. Data are based on UN Yearbook of International Trade Statistics, SITC, 5 to 8 (minus 68) and are consistent with 1979 data.

1979 (except Taiwan Province): UN, 1980

Taiwan Province, 1979: Taiwan Province is no longer included in UN statistics. See: Taiwan Province, Council for Economic Planning and Development, 1980, p. 188. Export figures for 'industrial products' are exactly 3.1 per cent greater than Keesing's figures for each year, 1973-7. Therefore, the 1979 export figure is deflated by 0.97 to arrive at a consistent estimate.

Source: Bradford, 1982.

Table 4

Percentage Composition of Manufactures Exported from Selected NICs and 'Next Tier' LDCs in 1975[a]

	Capital goods and consumer Engineering goods	Clothing, footwear and other consumer goods	Textiles, intermediate goods, miscellaneous
NICs			
Hong Kong	14.1	65.4	20.4
Republic of Korea	12.2	44.7	43.1
Taiwan Province	19.3	42.7	38.0
Argentina	25.8	7.1	67.1
Brazil	31.5	17.2	51.3
Next tier			
Colombia	7.9	23.5	68.5
Malaysia	15.9	11.9	72.1
Pakistan	2.0	13.6	84.4
Philippines	0.4	39.6	60.0
Thailand	3.8	23.6	72.6

a/ No data for Singapore or Mexico.

Source: Chenery and Keesing, 1979, p.31., Bradford 1982.

to the trade declines. It also induced a dramatic increase in domestic unemployment, reaching post-Depression highs within the OECD. The hardship of unemployment understandably produced a new upsurge in protectionist measures.

Ironically, new protectionist measures grew up at the same time that GATT could claim some of its greatest success in lowering tariffs in the Tokyo Round from 1973-79. These measures included most notably export subsidies, quotas, increased applications of the safeguards clause, increased recourse to voluntary export restraint, orderly marketing agreements, and subsidies contained in industrial policies. A recent study estimated the proportion of OECD imports of manufactures covered by the new protectionist measures had more than quadrupled between 1974 and 1980, from 4% to 17%. More recent talk of bilateral "reciprocity" in trade or "negotiated market access" revive anachronistic mercantilist principles of protectionism.

Trends toward increasing protection also reduce the export earnings of developing countries. Almost all OECD countries have taken actions that restrict the flow of developing countries' exports into their countries. This, together with the fall of commodity prices due to recession and the slowing of the demand growth for developing countries' exports, have combined to undercut the strong trends toward expanding their international market. Their export volume was cut from a growth rate of 3.8% in 1975-80 to below zero for both 1981 and 1982 (Table 5). Somewhat fortunately, most of this was attributable to declines in oil-exporting volume as all countries moved to conserve energy and cut their oil purchases. But the growth rates of exports from oil-importing countries and even exporters of manufactures were notably below their 1974-80 levels. These protectionist measures aggravate the problem of global economic downturn. They threaten to unleash a self-feeding cycle of escalating restrictions, more unemployment, and further contractions in income. The world is probably closer to a breakdown in the international rules that govern trade than at any time since the 1930s.

Table 5

Developing Countries' Trade Summary: Annual Rates of Change in Volumes and Prices 1970-1983

(percentages)

Region	Period				Forecast	
	1970-1980	1975-1980	1980	1981*	1982	1983
Developing countries						
Export volume	1.7	3.8	−5.4	−0.6	−5.1	4.0
Purchasing power of exports	9.2	7.3	8.0	−4.3	−9.4	3.5
Import volume	6.8	5.2	4.2	3.7	3.5	3.6
Major oil exporters						
Export volume	−0.1	−0.5	−13.7	−16.5	−14.7	3.9
Purchasing power of exports	17.0	9.9	23.1	−6.0	−19.4	3.2
Import volume	14.0	8.3	12.6	12.0	5.7	4.8
Other oil exporters						
Export volume	7.5	14.9	14.5	1.1	9.6	3.6
Purchasing power of exports	7.3	14.5	15.3	5.1	3.5	3.7
Import volume	7.5	4.8	16.7	15.1	−1.7	3.2
Net oil-importing countries						
Export volume	7.0	9.4	6.6	7.8	7.5	5.6
Purchasing power of exports	2.8	3.8	−7.8	1.5	2.6	5.2
Import volume	3.7	3.0	−4.6	−1.2	5.0	4.0
Exporters of manufactures						
Export volume	11.5	14.1	12.7	15.6	7.1	7.2
Purchasing power of exports	6.3	7.3	−8.0	9.7	4.8	6.5
Import volume	5.7	4.7	−7.1	2.1	6.2	5.0
Least developed countries						
Export volume	−0.8	3.4	2.7	4.4	6.7	3.8
Purchasing power of exports	−2.5	2.1	−5.3	−7.8	2.7	6.7
Import volume	2.4	4.0	2.3	−2.3	2.7	2.1

Note. The terms-of-trade calculations for groups of developing countries and territories have been made by the UNCTAD secretariat using a methodology briefly described in the UNCTAD *Handbook of International Trade and Development Statistics. Supplement 1981* (United Nations publication, Sales No. E/F.82.II.D.11), p. 456.

[a] For definition of country groupings and description of forecasting techniques see notes to annex table A.1, UNCTAD, 1982.

* Estimate.

Source: Adapted from UNCTAD, 1982: 128-129.

The new conflicts: structural, not cyclical

These tensions will probably not go away even if economic recovery exhibits an unanticipated resilience. The reason is that governments are becoming increasingly involved with the promotion of their domestic enterprises. While this has always been the case, the new aspects of this intervention concern the international dimension and scope of such policies. On the one hand, government subsidies in technological development and capital formation appear to be increasing. (Tables 6a and 6b). On the other hand, world trade integration now implies that these policies will directly spill over into international markets. The next sections present some overall trends in the purpose and use of industrial policies and then discuss the conflicts they produce.

In broad strokes, several long-term patterns in the trends and purpose of industrial policies are vaguely apparent. First, within the OECD countries, industrial policies seem to have moved beyond the "preservationist" policies of protecting weak industries toward "accelerationist" policies of more agressively creating and promoting high-technology industries. Spending for research and development increased as a share of GNP between 1962 and 1978 and industrial "targeting" has increased (Table 7).

Second, industrial policy within the OECD seems to converge in the same industries. Nearly all the OECD countries have strong public policies to defend their auto, steel, shipbuilding, and aircraft industries. Those countries with accelerationist policies toward high-technology industries have tended to overlap in the same industries: computers, semi-conductors, robotics, and office equipment. This convergence indicates that governments may begin to compete with each other in offering subsidies, tax incentives, incentives to technological development, and the like to promote specific industries.

Third, concomitant to the transition in industrial policy in the North has come a marked transition in the newly industrializing countries of the South: the transition from the import-substitution industrialization strategies of the early 1960s to the export promotion programmes that blossomed during

Table 6a

National Account Subsidies as a Percentage of GDP: Industrialized Countries

	Canada	France	Germany	Italy	Japan	United Kingdom	United States	Average OECD[d/]
1955[a/]	0.34	1.75	0.23	1.24	0.13	2.08	e/	0.96
1960	0.81	1.62	0.83	1.46	0.34	1.93	0.25	1.03
1965	0.82	2.17	1.28	1.37	0.71	1.61	0.45	1.20
1970	0.87	1.97	1.43	1.49	1.10	1.74	0.50	1.30
1972	0.83	1.99	1.48	2.29	1.15	1.82	0.59	1.45
1976	1.73	2.68	1.49	2.60	1.32	2.80	0.34	1.85
1978	1.42	2.64	1.86	2.92	1.34	2.20	0.45	1.83
1980[b/]	2.34	2.51	1.59	3.01	1.32	2.32	0.43	1.93

SOURCE: UN, Yearbook of National Accounts Statistics, Vol.I 1980, (Data from Table 1.3).

[a/] Data for 1955: UN, Yearbook National Accounts Statistics, Vol.I 1966, (Data from Tables 2 and 8).
[b/] Data for 1980: OECD, National Accounts 1951-1980, Vol. I, Main Aggregates, 1982.
[c/] Data for 1979, the last year available.
[d/] Unweighted average for the OECD and NIC countries shown.
[e/] Negligible.

NOTE: National account subsidies are current subsidies as shown in national accounts and presumably reflect net losses on state enterprise, subsidies to research and development, direct export subsidies, direct agricultural price support programs and the like. They do not reflect, however, implicit subsidies effectuated through loan guarantees, tax and other fiscal incentives, and indirect subsidies, such as below-market prices of final products or interest on loan capital.

Table 6b

Subsidies as a Percentage of Gross Domestic Product: Selected NICs

	Brazil	Republic of Korea	India	Average NICs[d]
1955[a]	N/A	0.70	N/A	0.70
1960	0.87	0.12	0.62	0.53
1965	1.40	0.01	0.79	0.73
1970	0.55	0.19	0.84	0.53
1972	0.56	0.30	1.15	0.67
1976	0.69	1.29	1.73	1.24
1978	0.86	1.34	2.28	1.49
1980[b]	0.60[c]	1.16[c]	2.36[c]	1.37

SOURCE: UN, Yearbook of National Accounts Statistics, Vol.I, 1980.

[a] Data for 1955: UN, Yearbook of National Accounts Statistics, Vol.I, 1966.
[b] Data for 1980: OECD, National Account 1951-1980, Vol.I, Main Aggregates, 1982.
[c] Data for 1979, last year available.
[d] Unweighted average for the OECD and NIC countries shown.

NOTE: National account subsidies are current subsidies as shown in national accounts and presumably reflect net losses on state enterprise, subsidies to research and development, direct export subsidies, direct agricultural price support programs and the like. They do not reflect, however, implicit subsidies effectuated through loan guarantees, tax and other fiscal incentives, and indirect subsidies, such as below-market prices of final products or interest on loan capital.

Table 7

Appendix table 1-3. National expenditures for performance of R&D as a percent of gross national product (GNP) by country: 1961-81

Year	France	West Germany	Japan	United Kingdom	United States	U.S.S.R.
	Ratio of R&D expenditures to Gross National Product[1]					
1961	1.38	NA	1.39	2.46	2.73	NA
1962	1.46	1.25	1.47	NA	2.73	2.64
1963	1.55	1.41	1.44	NA	2.87	2.80
1964	1.81	1.57	1.48	2.29	2.96	2.87
1965	2.01	1.73	1.54	NA	2.89	2.85
1966	2.06	1.81	1.48	2.32	2.88	2.88
1967	2.13	1.97	1.53	2.30	2.89	2.91
1968	2.08	1.97	1.61	2.27	2.82	NA
1969	1.94	2.05	1.65	2.22	2.71	3.03
1970	1.91	2.18	1.79	NA	2.63	3.23
1971	1.90	2.38	1.84	NA	2.48	3.29
1972	1.86	2.33	1.85	2.06	2.40	3.58
1973	1.76	2.22	1.89	NA	2.32	3.66
1974	1.79	2.26	1.95	NA	2.29	3.64
1975	1.80	2.38	1.94	2.05	2.27	3.69
1976	1.77	2.29	1.93	NA	2.26	3.55
1977	1.76	2.32	1.92	NA	2.24	3.46
1978	1.76	2.37	1.93	2.11	2.23	3.47
1979 (prelim.)	NA	2.36	NA	NA	2.25	3.44
1980 (est.) ..	NA	NA	NA	NA	2.33	3.47
1981 (est.) ..	NA	NA	NA	NA	2.37	NA

SOURCE: National Science Board, 1982: 210

the 1970s. Government policies typically have tried to convert an industrial base built upon import substitution to an internationally competitive, outward-oriented industry. This has required various instruments: state enterprises, performance requirements, aggressive bargaining with multinationals, and export incentives. The industrial targets tend to be mature industries in the developed countries, but also some high-technology industries.

The industrial policies of developing countries are quite different than those of developed countries because the NICs confront different barriers to entry. These countries confront sale and international marketing barriers (often in addition to technology barriers) and they do so with the handicap of a much smaller private sector. This suggests that state participation will be more direct and more targeted since industrial gaps are more obvious in countries with small industrial bases, and it may take the form of bargaining with foreign multinationals since the latter frequently control marketing channels and technology.

By their very nature, these policies are more likely to have direct spillover effects on trade than are the indirect policies of the more advanced countries. Smaller domestic markets imply that in industries with high-scale barriers, such as autos, tractors, and large power generating equipment, international efficiency sooner or later requires exporting. Second, the mature industries tend to have slower growth so that new additons to capacity are more noticeable. Firms in the NICs in steel, petrochemicals, and some minerals were creating new capacity during the 1970s at a time when the major suppliers in the OECD countries were cutting back on capacity. Third, the skill gap is much narrower than the wage gap between the advanced countries and the newly industrializing countries for many countries. Thus, wage rates may accord production facilities in the developing countries a substantial cost and productivity advantage in many industries.

The new industrial policies then have spawned two quite different conflicts on trade and investment issues.

Intra-OECD conflict

The situation is particularly tense within the OECD countries over the issue of agricultural subsidies and industrial policies. Domestic price support programmes in some industrialized countries have become so extensive that governments within the EEC are now subsidizing exports at less than market values. The U.S. Government recently began subsidizing its own agricultural exports - unleashing the first retaliatory volley in a brushfire skirmish that could set off a much larger trade conflagration.

Industrial policies in mature basic industries and high-technology industries is a second volatile concern. The EEC and the United States narrowly avoided a new cycle of trade-contracting measures by negotiating a resolution to conflicts over trade in steel. The United States also negotiated a resolution to its conflict with Japan over automobile imports, but a new debate looms when the third year of restraint ends this year. The OECD countries are thus locked in a defensive struggle with no country being willing to follow near-term market signals and cede its industry to the other. More incipient, but perhaps of greater long-term consequence, is the emerging conflict over industrial policies targeting high-technology industries for future development. Japan, France, and other countries have selectively subsidized production and technological development in several industries which have become internationally competitive. This creates new concerns within the trade-affected countries, and there is no clear legal resolution within the framework of GATT.

North-South trade disputes

Tensions also permeate North-South trade and investment relations. These problems are even more destabilizing than intra-OECD conflicts because they are potentially more disruptive to employment patterns within the OECD and they are inextricably bound to the stability of the international financial system. As the newly industrializing countries move into the production and export of products formerly the sole province of the OECD countries, the low-wage, but higher-skill, exports will increasingly compete with established, mature industries. These industries tend to have above-average wage levels in the OECD countries and tend to employ directly or indirectly a large segment of the work force. The potential for import penetration is both greater and more disruptive than ever before.

At the same time a protectionist response poses a double threat: Not only does curbing the exports of developing countries retard their capacity to buy the products of Northern factories, it also undermines their ability to continue the service on their international debt. A widespread default would bankrupt several banks and probably contract trade and world incomes in a manner not dissimilar to the 1930s.

Each set of parties to the North-South trade conflict has a different agenda for action.

The agenda of the OECD countries

Certain OECD countries have expressed deep concern over what they see as protectionist measures in high-technology products, trade in service, and requirements on investments. Several countries view the high-technology industries as key to their national development and have sought to promote them with production and research subsidies, preferential procurement in state-owned enterprises, and unilateral legislation concerning patents. These are the industries in which the developed countries have comparative advantage.

Regulation of trade in services is also of concern. Many developing countries have adopted restrictions on banking, finance, insurance, real estate, and engineering as well as transborder data flows and telecommunications. Governments in developing countries see the regulations as important policy levers to be used in controlling domestic macro-economic conditions, maintaining national security, or closing the technology gap. The developed countries, however, are increasingly reliant on their earnings from these services and fear their loss.

Regulation of foreign investment is another concern of certain OECD countries. They contend investment requirements that place conditions on foreign investors as a prerequisite for reaching the domestic markets inefficiently and unfairly distort trade patterns. These practices include requiring companies to export more, reach a specific level of local content, or reduce imports. Developing countries see these industrial policies as tools to promote national industrialization.

The agenda of the developing countries

Developing countries feel particularly hurt by the new protectionist measures. Agricultural protection as well as export subsidies unfairly compete with the commodities of the developing countries. Quotas and other restrictive agreements limit the import of their sugar, beef, butter, oilseed, wheat, corn, rice, and tobacco. Orderly marketing arrangements in textiles and clothing are particularly harmful. The cascading tariff structure of the OECD countries impedes the processing of raw materials into higher valued products. A UNIDO study, for example, notes that developing countries could earn an extra $44 billion per year if exports of seven of their raw materials could be taken up to the metal bar stage. If tariffs were removed on eight processed food commodities, the World Bank estimates that developing countries would increase their value-added in those products by 20 per cent.

Moreover, the developing countries feel they are unfairly victimized by unilateral applications of safeguards procedures. Bilateralism in trade has politicized commercial relations in a way that unfairly discriminates against those nations with the weakest bargaining position.

The common interest

These conflicts are real and likely to be enduring even if economic growth rates were to turn strongly positive and the international financial crisis were to be brought under control. But the fact that growth prospects are bleak and the final resolution of the financial crisis is in doubt makes the outlook for world commercial relations especially precarious. Nonetheless, all countries share a common interest in seeing that these problems do not degenerate into a wave of protection and retaliation that can only end in a deep contraction of trade, growth, and national income. Secondly, all countries share an interest in a system of multilateral rules. Without rules there can be no restraint on policies that harm other countries. The weakest countries will be hurt most in a system of purely politicized trade and investment.

Nonetheless, the system of multilateral rules established under the post-war GATT regime is under severe stress. GATT is ill-equipped to handle the needs and conflicts either within the OECD countries or between the OECD and developing countries. It is highly probable that a new system will be put in place in a far less coherent, comprehensive way than happened after the war. Developing countries, like the developed countries, have a direct stake in any evolving new system. For better or worse, the political and economic situation in the developed countries, especially the United States, offers the developing countries an opportunity to assume a new leadership role. Behind the opportunity is a danger: if the developing countries are not successful in establishing new equitable rules governing trade, they may find themselves increasingly excluded from the markets of the industrialized countries as the latter drift toward bilateral arrangements and sporadic protection.

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DEVELOPING COUNTRY DEBTS AND INDUSTRIAL GROWTH by Gerado Sicat*

INTRODUCTION

The subject of developing country debts ties more directly with overall economic strategy rather than with specific industrial development strategy, although the two strategies mutually interact. One of the causes of the growth of developing country debt is the expansion of their industries. Investments in industry have notably required external financing. It is not surprising then, to note that many countries that have raised their international debts are among the rapidly industrializing developing countries. In noteworthy cases, this rapid industrial growth could not have been possible without access to international finance to support the investments in industry.

But the reasons for the increase in developing country debts are much more varied and are the result of diverse economic developments. For instance, a country may incur huge debts even if these are only designed to finance persistent balance-of-payments deficits.

The rapid growth of international debt among developing countries is originated only during the 1970s. Several factors that need not be discussed at length were responsible for this: the rapid growth of some developing countries, mostly newly industrializing countries, which required access to international finance to meet their development strategy; the energy crisis, which necessitated, especially among the oil-importing developing countries, a higher trade gap that required financing, if their growth had to be sustained; and the build-up of petrodollars of the oil-exporting countries that had to be recycled - and as a result, the increase of international liquidity in the Eurodollar market.

This paper focuses on the effects of recent adjustments in the international debt picture on developing countries especially in the 1980s. In particular, it touches on the impact this may have on the economic and industrial growth that is sought to be promoted in the developing countries. Some attention is given to the institutional developments affecting developing country external debts which affect their overall economic framework. At the end, the prospects of external debts in developing countries in the 1980s will be discussed.

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* Mr. Gerado Sicat, Chairman of the Board, Philippine National Bank.

DEVELOPING COUNTRY COMMERCIAL DEBT:

Composition and Concentration

There is a large concentration of international debt to commercial banks by a few developing countries. At the end of June 1982, eight countries in Latin America owed $ 278.3 billion; four countries in Asia $ 6.1 billion; and seven countries in the Middle East and Africa owed $ 46 billion. These twenty-one countries accounted for 86% of the total debt of developing countries from commercial banks. In addition, four of the Latin American countries owed $ 237.4 billion, which constituted 59% of the total external debt to banks of the twenty-one developing countries.

There is no single major factor accounting for this build-up of debts. In most countries, the aggregate level of development spending accounted for a major element in this build-up of debts. Some of the middle-income and high-income developing countries had taken advantage of new investment opportunities while bracing for the high cost of energy. They financed these new investments with foreign borrowings when traditional sources of official development assistance and long-term loans failed to keep pace with their investment objectives. The lending also changed in general character. While often times there had been supplier's credit and project related assistance, the growth of international commercial lending (encouraged by the petrodollar surpluses recycled within the Eurodollar market) had shifted towards more quickly disbursing loans and had generally taken the form of balance of payments financing. Sometimes this meant borrowing to prop up the international reserves and, in addition, to financing the payments gap.

In some cases, these new investments were designed for ventures that were planned for export industries. In other cases, these were for investments considered significant for domestic development - either as infrastructure projects or as industrial projects.

Oil Shock

Two significant developments in the world economy affected the position of the debtor developing countries.

A first component of this was the second oil crisis (in 1979) when energy supply became very tight and oil prices rose to a new high; this was followed by an oil glut which forced oil prices to soften, and later to collapse. This oil-related event should be a welcome development to all oil-consuming nations, including the developing countries. But some of the heavy developing country debtors are primary oil exporters, and the down-turn in oil prices had dire consequences on their capacity to service their debts, since optimistic investment plans had caused the commitment of large amounts of their oil revenues to service imports and debts.

The second oil shock led to the tightening of liquidity in the Eurodollar market partly as a diminution of the already reduced petrodollar surpluses which are due to recycling within the financial system.

As some debt-servicing capacities were known to be in difficulty and some principal borrowers were in threat of default, the banks decided to play a cautious role in extending further credit. This led to an aggregate reduction of lending by banks to developing countries.

Recession, terms of trade loans, high interest rates

A second and related development is the prolonged international recession. The lack of demand for some exports induced depressed export prices and therefore caused severe terms of trade problems for many developing countries. Coupled with the high interest rates during 1980-1982, these developments required an inordinately high debt service level. In some cases, the debt-servicing capacity was impaired, hence causing critical domestic economic (and related social) problems.

The debts of industrializing developing countries

As stated earlier, the rapidly developing countries obtained a high proportion of the liquidity derived from the expansion of the commercial international debts for developing countries. This is partly an indication of the economic opportunities arising among the newly industrializing and other developing countries and the relative optimism that surrounded the assumption about their capacity to service their debts.

Access to international credit is dependent basically on two factors: first, the capacity to incur international indebtedness to finance existing development or other expenditures whether public or private in character, which is matched by corresponding credit worthiness, and second, the willingness to use external sources of funding as a matter of policy. Of course, the policy to borrow is a necessary condition for access to internation credit. Credit worthiness, which is dependent on lenders' assessment, is the sufficient condition.

Many countries that are considered credit worthy have not turned to the international debt market because they have chosen a much more conservative (or prudent) debt policy. On the other hand, some countries do not qualify to obtain debts because of poor credit assessment and, therefore, there are few commercial banks offering them any financing deals. This is the case for many developing countries that are still largely recipients of official development assistance; whatever access they have to commercial debts is limited and, therefore, minimal. Among the least developed countries, this condition prevails, but it is also true in varying degrees among other developing countries.

Some countries that emerged with high levels of growth in the 1970s, however, have undertaken an aggressive access to international debt. Aggressive borrowing by some countries has led to a build-up of short-term debts in massive proportion to total debts, which has also gone up.

The relationship of a country to the international finance institution may be critical in ascertaining their graduation to the commercial debt market. In some instances, the relationship of a country with the IMF and the World Bank is the critical path towards passing the credit worthiness test. When these two institutions had given a country a relatively good credit bill-of-health, the commercial banks secure a higher sense of confidence in extending them additional loans.

This may not work out all the time since a country may entertain substantial disagreement with these institutions in terms of a policy strategy towards balance of payments gap financing. It does not always work out this way. If the lending banks behave competitively, some banks may not rely on signals emanating from IMF/World Bank policy. In such cases, some borrowing countries may be able to masterfully work their way by obtaining alternative financing, in a figurative sense, navigating along the dangerous waters.

The recent adverse development on the developing country debts need not affect all countries that are in the market for more loans to finance their development in the same way. Countries that have reached their debt servicing limits in the meantime would have to adjust their external debt position to something manageable within their immediate medium-term framework.

In the meantime, the lending banks proceed with much greater caution and selectivity in extending additional loans. The result is a slowdown in the access to loans of even the relatively conservative countries seeking an increase in their loan positions. This added degree of caution could be a healthy development, provided that economic growth resumes in the international setting, so that the developing countries seeking access to loan funds can continue to finance their development programmes. But those countries with a marked degree of capability to service debts should be able to continue to have access to the loan market.

Interdependence of various components of the debt problem

In examining what happens to the market for loans in the future, it is important to examine what is likely to happen to the interacting elements of the commercial debt market for countries. There are four major elements in this interdependence:

- the borrowing countries;
- the international financial institutions;
- the commercial banks; and
- the developed countries.

The recent events have made their actions interdependent, so that what one set does affects the others.

Borrowing countries

An immediate impact on some of the borrowing countries is the need for some retrenchment in their aggregate spending. This is a standard prescription to put their external debt servicing capacity within reasonable range of their export capacity. A critical component in this adjustment is a restructuring of their debt, to bring the debt maturities in line with the realities of their balance-of-payments position.

Careful recognition must be given to the fact that drastic short-term adjustments can cause domestic instabilities which are not confined to the economic effects. Social and political implications are quite sensitive and, therefore, most governments would attempt to avoid them. Retrenchments cannot be sudden, because what may be gained in economic effects may be offset by other developments. In this case, a longer-term adjustment is preferable to drastic short-term measures designed to stop balance-of-payments pressures. To what extent this is done naturally depends on other factors, such as an ability to get continued support from the commercial market and the international financial institutions.

Careful domestic economic management requires a prudent aligning of international debt maturities. An attempt to prevent a bunching of debt repayments over short-run periods of time requires appropriate screening of debts at the point they are incurred. Once this basic discipline fails to work and the debts of a country are basically short-term, the result would be inevitably a situation of short-term borrowings to roll-over maturing debt.

These are the situations that inevitably lead to debt restructuring. In the case of country borrowers, debt restructuring requires the co-operation of at least the major creditors - the commercial banks and the financial institutions - and, if the magnitude is large, as the recent cases have been, the bridging loans of the central banks of the most affected lending industrial countries.

The borrowing developing countries are, however, interdependent. The countries that have followed a prudent and conservative policy of external borrowing are affected by general developments facing a very nervous lending market. To the extent that the 1982 debt crisis had contracted their access to international liquidity, their economic programmes may have been affected adversely. This is the result of, among others, a destabilizing effect of a debt servicing problem for one country spreading to others once confidence is shaken. In fact, this was what happened when upon the advent of the 1982 debt crisis, the banks reduced their commitments to developing countries. Some countries that would normally still get good credit could obtain this only at higher cost.

The nervousness and shrinkage of funds could be a temporary phenomenon. Later on, the way could be paved for a well-ordered market for indebtedness of the credit worthy developing countries. The adjustments that the countries which faced severe debt crises recently, include a reduction of domestic spending and a restructuring of their existing loans. It is said that it takes some three to four years for some of these countries to re-establish their credit worthiness, assuming their adjustment programmes work out.

In the meantime, the credit worthy developing countries in fact could face a receptive market and therefore need not suffer from prolonged illiquidity for their international needs. In the aftermath of the debt crisis in which, it is hoped, all sectors concerned come out wiser and chastened, there could arise a better setting for international debt.

In short, it is possible to take an optimistic tone about the future. Some developing countries that are growing well via the route of industrialization and trade will continue to flourish, provided their external balance is managed well. Sound management will have to be spelled out, based on self-imposed criteria and even on certain guidelines that may be developed internationally in order to provide some collective safeguard against unstable developments.

For a country, this implies a prudent management of their external debt policy. Such management of the external debt includes the framework of a well-structured external debt, maturity structure of which means that there ought to be a balanced mix of short, medium and long-term loans. Later, below, these components of external debt discipline will be discussed further.

The international financial institutions

One major result of the debt crisis is the greater role now demanded of the international financial institutions - the International Monetary Fund and the World Bank. In addition, the Bank of International Settlements has helped in providing bridging loans to the problem borrowers while efforts to solve the crisis were being undertaken. This is the result of the combined actions of the lenders and the pressures from the lenders' governments upon these international institutions to act so as to insure conditions for continued access of the borrowers to international funds. These institutions carry the leverage to institute fiscal, monetary and balance-of-payments adjustments programmes since member governments turn to them to solve the balance-of-payments and structural economic problems.

In the aftermath of the debt crisis of 1982, the importance of these institutions was demonstrated. This enhanced their respective roles. The commercial banks made themselves more dependent on the discipline that the IMF could work out with member countries facing serious external debt problems. The conditionality related to IMF standby arrangements became a major input to commercial banks' willingness to accept restructuring of their sovereign loans.

There is an innate danger that the IMF outlook, which essentially means short-term adjustments, can provide measures that are severe from the developing country viewpoint. As stated earlier, severe adjustments can have more than just their implications on correcting the balance-of-payments deficit. It is useful to take a longer-term outlook and to closely monitor the cause of the servicing problems. In this case, the IMF's short-term outlook may be tempered by an essentially longer-term perspective that may be derived from the World Bank.

The World Bank's role can, therefore, be significant in connection with the support of middle and higher-income developing countries with loans of longer maturity. In recent years, the effort of the World Bank to graduate these countries from official development assistance may have been prematurely fast. Pressure upon the Bank to provide more loan support to these countries could assist in restructuring the loan composition of borrowing developing countries. This could pave the way for longer maturities and perhaps reduce the credit risks associated with the country in the commercial market.

To do this effectively, however, raises the question of the increase in the capital subscription to the World Bank. This issue has proceeded at a slow pace from the viewpoint of developing countries because of the industrial countries that are opposed to this, or sought a lower level of increase.

The speed with which the resources of the IMF quotas were recently increased, together with an increase of the General Arrangements to Borrow (GAB) in February 1983, demonstrates how a crisis can catalyze action within the international community. While the increase in quotas does not raise it to a level that presently satisfies the developing countries[1/] these increases in resources give the IMF additional fresh funds to respond to the problems posed by the debt issue.

To the extent that these fresh funds are applied to the liquidity requirements of many developing country borrowers rather than to the huge needs of the countries with crisis requirements, there will be an increase in the lendings available to support developing countries requirements. The system has, however, provided inadequate support so far. The recent moves have increased the resources ahead of the scheduled quota increases. The quota increases of 50% in 1959 and 1980.

While from the viewpoint of the Third World, the recent increase in IMF resources are still inadequate, the quota increases in resources that have been agreed upon are bigger than what was originally proposed. The sudden exigencies of recent debt crisis certainly had a lot to do with accelerating this process.

Commercial banks

The commercial banks are in finance because of the profits earned from the service of providing debt. Their continued support of developing country requirements is contingent naturally on credit worthiness, but they cannot stop the flow of credit drastically when the borrowers encounter servicing difficulties, even among highly indebted countries, without endangering the whole international system of loans on which their existence depends.

As a precautionary measure, the commercial banks decided to co-operate among themselves and, with the co-operation of the IMF and other international institutions, a set of emergency measures to continue to provide credit under a formula in which they provide additional loans to problem borrowers according to a quota allocation system based on their existing exposure to the country concerned. As a result, additional

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[1/] The increase of the IMF quotas is from SDR 61.03 billion to SDR 90 billion is short of the doubling that many proponents, including the Brandt Commission, have been suggesting. Together with the GAB, the IMF resources are "effectively" doubled, but the question is that a doubling of the quotas would have a larger effect on resources.

funds had been arranged to avoid default and ultimate crisis. In doing so, however, a cartelized atmosphere, instead of competition, has prevailed in servicing these loans. Clearly, this co-operation among the banks may only by temporary if the assumptions of viability of the borrowers' case are not warranted, in which case some banks could withdraw from the agreements.

These co-operative ("cartelized") actions are also conditioned on a stronger role played by the international institutions and on the firm backing of the lenders' governments.

Developed country actions: lenders' governments

Most important in this development was the reliance upon the collective will of the lending banks' respective governments - the industrial countries - to provide the ultimate security. This is in the form of supporting a lender of a last resort facility through the efforts of national central banks to intervene with bridging loans and provide greater confidence in the system. The actions on the increase of IMF quotas, the orchestrated easing of monetary policy, and the greater concern now for economic recovery as against the policy of containing inflation - all of these are indications of a changed mood that may have been ignited by the developing country debt crisis.

As a result, perhaps this is the opportune time to look into the maintenance of an international trading system. There is need for the industrial countries to revise their economic strategies of national management to emphasize economic growth and stimulate trade. The borrowing capacities of developing countries grow with their economies, and their debt-servicing capacity depends on their ability to sell their goods to the industrial markets.

Prospects of developing country debts in the 1980s

What then, can be said about the rest of this decade in respect to the prospects of increased liquidity for developing countries through the international financial system? With the hindsight of the debt crisis of recent months, a lot of lessons have been learned which are likely to have a significant effect on future developments.

The steps undertaken by affected sectors, which are all interdependent, are likely to crystalize in the form of improved co-ordination and regulation. Whether on a voluntary basis or as a result of conditionality in borrowings from the IMF and other international institutions, some restraint on aggregate spending that leads to excessive loan demands of some developing countries will likely materialize.

Reliance on voluntary mechanisms by borrowing countries could be a measure that some developing countries may wish to pursue. The measures the Philippines adopted in 1970 prepared it for greater restraint during the succeeding years of build-up in its foreign loans. The condition that any time the debt-service payments should not exceed 20% of the foreign exchange rates of the preceeding year served as a mechanism not only to restrain further borrowing but to enforce on the lending community offers of foreign loans with longer maturity profile.

The commercial banks, individually or in concert, will work out efforts to refine appropriate credit ceilings by country, taking into account their evaluation critera. It is also likely that there will be greater cartelization of the effort to project for all banks country ceilings for some countries. If the developing countries are undertaking self-restraint by adhering to their own limits for foreign debts, it is likely that their efforts will be matched by the credit ceiling levels utlized by the lending institutions.

Voluntary efforts are only workable when everyone uses relatively similar decision rules. A regulatory atmosphere could emerge, if the IMF undertakes to impose guidelines on foreign debts. Indeed, this is a direction that the lending institutions and their governments are suggesting and as a result, the IMF's hand is likely to be strengthened. Of course, the IMF already undertakes this when it assists countries in balance-of-payments distress but a more explicit set of guidelines which could be binding or at least generally known to the financial markets could be worked out.

Together with these are institutional measures that should be undertaken to prevent the sudden contraction of loans to borrowers to prevent a bank "run" on borrowers, whose credit position is temporarily impaired. This requires a lender-of-last-resort facility that is not yet institutionalized, although the Bank for International Settlements had acted to do this on an *ad hoc* basis and some developed country authorities (like the US Treasury and European central banks) have lent bridging funds to distressed borrowers.

Ultimately, developing country external debt capacity depends on the way the countries concerned are able to stimulate their export growth and internalize economic development. This in turn depends on how they take advantage of the conditions for trade growth within the world economy.

Aside from domestic development strategies, the major factor then depends on the nature of the world economic recovery for the rest of the 1980s. If indeed, the rest of this decade is one of slow growth, then this sets a lower limit on the growth of many developing countries that are trading with the industrial economies.

But there will always be some developing countries that will, as a group or alone, require much more access to external debt, in spite of this climate of greater regulation, whether internationally or through voluntary self-restraints. This is because there will be high-performing developing countries that would be able to take advantage of growth opportunities more than others, whether this is due to international, regional, or national developments. As a result, the concentration of access to external debt by relatively few developing countries is likely to continue, although it may not be to the same extent as the conditions found in 1982. Therefore, relatively more developing countries will find access to external debt if they so wish. But with greater discipline excercised on spending programmes, there will be a greater spread of external liquidity that can be availed of by other developing countries.

A major factor that would help reduce developing country demand for external debt may however be considered. The major source of the growth of the Eurodollar market in the 1970s may no longer be around for the 1980s - the petrodollars of the OPEC and oil producing countries, as the price of oil continues to remain steady and as the oil-exporters continue with their high spendings for development. The contraction of the petrodollar surplus means that there may no longer be a major resource that has to be recycled. In fact, many oil-producing countries are now in balance-of-payments deficits and are in fact in danger of having debt crises of their own.

On the other hand, the conditions for large requirements for borrowings may not exist, especially among developing countries that benefit from the down-turn in energy prices, precisely on account of reduced energy bills. There may also be factors that would favourably improve the conditions for economic recovery on a world scale. The improvements in the balance-of-payments positions of these countries will be helped not only by oil prices but also by an improvement in their terms of trade because of a recovery in their commodity markets.

THIRD WORLD INDUSTRIALIZATION: INDUSTRIAL STRATEGIES AND POLICIES IN THE 1980s AND 1990s by Ajit Singh*

INTRODUCTION

The brief for this paper is to provide an 'evaluation of (Third World) industrial development in terms of establishing a socially and economically viable industrial structure; and (to consider) adjustment and industrialization in the 1980s and 1990s'. Taken literally, this involves a discussion of the past, present and future of Third World industry, which could easily be the subject matter of several learned volumes. It shall, therefore, necessarily be selective and very brief and shall not be able to do justice to the issues involved.

In 1975 the Second General Conference of the United Nations Industrial Development Organization issued its well known Lima Declaration and Plan of Action on Industrial Development and Organization. This was in effect a call for industrial revolutions to be brought about in Third World countries, however, late in the day, and thereby for a fundamental change in the world economic order. As Professor Arthur Lewis (1975) has reminded us, the present unequal structure of the world economy - its division into two groups of countries, those which are largely producers and exporters of manufactures and those which are largely producers and exporters of primary products - is a comparatively recent phenomenon in world history, essentially one of the last century or so. The Lima Declaration, noting that the developing countries constituted 70% of the world population and generated less than 7% of industrial production, called for accelerated industrial development and for the developing countries' share of world industrial production to rise to at least 25% by the year 2000.

Meeting in Lima in the midst of the most serious crisis faced by the world economy since the 1930s, it is particularly fitting that we should take stock, evaluate the course of Third World industrial development and ask how the aspirations of 1975 may be fulfilled. The central question to be addressed in this paper is: how, if at all, can third world countries continue with their industrial revolutions in the context of a possible long-term deceleration in world economic growth? What are the appropriate economic policies for this purpose, in both the short- and long-terms, in the changed circumstances of the world economy?

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* Mr. Ajit Singh, Fellow and Director of Studies in Economics, Queen's College, Cambridge University, England.

THIRD WORLD INDUSTRIALIZATION IN RETROSPECT: STRENGTHS AND WEAKNESSES

A recent GATT study (GATT 1983) on the world economy estimates that in 1982 GDP in non-oil developing countries increased by less than one per cent. This represents for these economies the lowest annual growth rate in the post-war period and, on a per capita basis, an even greater decline than in 1981. For many well known reasons, the economic outlook for the developing countries in 1982 is worse still.

Nevertheless, if one takes a longer view, the long-term record of Third World industrial development during the last two decades is far from depressing. Despite its many weaknesses, Third World industry has very important achievements to its credit. These strengths - as well as weaknesses - are summarized and reviewed below.

Strengths

The magnitude of industrial development

Table 1 brings out in a summary form the major long-term structural changes which took place in the world industrial economy between 1960 and 1980. During these two decades, the third world's share of world manufacturing production, though still small, increased significantly: from 6.9% to 10.2%, a rise of nearly 50%. Along with the developing nations, the socialist countries also recorded a large increase in their share of world manufacturing - again about a 50% increase (from 17.1 to 26.6%).

The statistics in Table 1 also enable us to compare the industrialization experience of the 1960s with that of the 1970s. It is important to observe that, whereas there was a trend decline in world industrial growth during the 1970s compared with the 1960s, the developing countries actually recorded a trend increase in their pace of industrialization over this period. The rate of industrial growth in developed market economy countries showed a sharp drop, from nearly 6% in the 1960s to less than 4% in the ensuing decade; it also fell,

Table 1

Structural changes in the world industrial economy: 1960-80, manufacturing output (value added) for major economic groups

	1960	1970	1980
Value added			
(Billions US dollars at 1975 prices)			
Developing countries	49	101	218
DMEC[a]	533	942	1,358
Socialist countries	119	283	572
Total	701	1,326	2,150
Contribution to GDP (per cent)			
Developing countries	13.4	15.7	19.7
DMEC[a]	24.3	26.5	27.8
Socialist countries	24.6	30.7	36.7
Total	23.1	25.9	28.4
Share in world manufacturing output			
(per cent)			
Developing countries	6.9	7.6	10.2
DMEC[a]	76.0	71.1	63.2
Socialist countries	17.1	21.3	26.6
Total	100.0	100.0	100.0

	1960-1970	1970-1980
Average annual growth (per cent)		
Developing countries	7.6	8.0
DMEC[a]	5.9	3.7
Socialist countries	9.0	7.3
Total	6.6	4.9

Source: UNCTAD, 1981.

a/ Developed market-economy countries.

though not as much, in the socialist countries. In contrast, in the Third World countries industrial growth was slightly faster in the 1970s than before. If the experience of the 1970s were to be repeated over the next two decades (i.e. if Third World industrial development were twice as fast as that of the rich countries), the developing nations would easily be able to meet the Lima Target of a 25% share of world industrial production by the year 2000. (Singh: 1981, UNIDO: 1979).

The quality of Third World industry

Rapid industrial development has led to very important changes in the economic structure of Third World countries. Table 1 shows, the contribution of manufacturing to GDP in these economies increased from an average of 13.4% in 1960 to nearly 20% two decades later.

Disaggregated data for the individual industry branches indicate that industrial development in the Third World has also been widely based. The developing countries' share in world production has risen in most industrial groups. Over the period 1960 to 1976, the Third World's share in world output of heavy industry increased from 4.9% to 6.2%, and of the light industries from 11.6% to 12.4%. Table 2 presents data for the 1970s. It shows that with the sole exception of petroleum refineries, the developing countries increased their share of every industrial group.

Of course, qualitatively, the most significant feature of Third World industrial development during the last two decades has been the widening and deepening of the industrial revolution in a small group of developing economies - the so-called semi-industrial or newly industrializing countries (NICs). The NICs have been particularly successful in creating their own industrial capacities and capabilities. They are emerging as important exporters of manufactures, and are now providing actual and potential competition for the older industrial nations, not just in labour-intensive products, but also in a range of capital-intensive industries like steel and shipbuilding. Consequently, as the statistics produced by the Secretariat show, the Third World's share in world exports of manufactures nearly doubled during the 1970s: from 5

Table 2

Share in world manufacturing value added, by branch of industry and economic grouping[a]

(percentage)

Branch	ISIC	Developed market economies			Centrally planned economies			Developing countries		
		1970	1975	1978	1970	1975	1978	1970	1975	1978
Food products	311/2	65.2	62.8	62.7	22.8	25.0	24.3	12.0	12.2	13.0
Beverages	313	69.2	66.1	64.2	19.2	20.7	20.5	11.6	13.2	15.3
Tobacco	314	61.0	57.7	56.4	13.3	14.7	14.6	25.7	27.6	29.0
Textiles	321	61.4	55.4	54.3	23.8	27.8	28.8	14.8	16.8	16.9
Wood and cork products	331	74.2	70.3	70.9	16.7	20.2	19.3	9.1	9.5	9.8
Industrial chemicals	351	76.4	68.8	69.8	18.6	24.1	23.1	5.0	7.1	7.1
Other chemicals	352	83.9	79.5	79.8	5.2	6.8	6.4	10.9	13.7	13.8
Petroleum refineries	353	54.7	53.5	50.2	9.2	14.2	14.8	36.1	32.3	35.0
Miscellaneous products of petroleum and coal	354	52.7	48.1	46.4	35.7	38.1	38.1	11.6	13.8	15.5
Pottery, china and earthenware	361	58.7	50.1	48.3	29.8	37.2	38.8	11.5	12.7	12.9
Glass	362	75.9	68.1	67.4	17.1	22.8	23.7	7.0	9.1	8.9
Other non-metallic mineral products	369	64.6	57.7	58.1	27.8	32.8	31.6	7.6	9.5	10.3
Engineering goods	381/2 383/4	67.1	..	56.0[b]	29.4	..	39.3[b]	3.5	..	4.6[b]

Source: UNIDO, 1981.

a - Based on data in 1975 United States dollars.

b - 1977.

The weaknesses of Third World industrial development

Against the above generally favourable long-term record, it is necessary to set serious weaknesses which have emerged in Third World industrial development, some of which today cast doubt on the further progress of Third World industry.

The international distribution of industrial production

The data presented in Tables 1 and 2 treat all developing countries as one group: there are inevitably very great differences in performance and industrial potential between these countries. More specifically, UNIDO (1979) has shown that only 10 countries accounted for nearly three-quarters of the total growth of manufacturing production in the Third World between 1966 and 1975. These countries, in descending order of their contribution to the total increase in manufacturing value added in all developing countries during this period, are Brazil, Mexico, Argentina, Republic of Korea, India, Turkey, Iran, Indonesia, Hong Kong and Thailand. It would, however, be wrong to infer from this that Third World industrialization has been only a limited process, restricted to a small group of unrepresentative developing economies. It should be remembered that in 1975 the ten countries listed above accounted for 60% of the total population of the developing countries (included in the 'Third World' or 'developing countries' aggregate in the discussion of this section).[1/]

The national distribution of the fruits of industrial development

Many economists argue that, although Third World countries have achieved impressive results in industrial development, the distribution of gains has been highly unequal. It is suggested that only a small elite benefits from the immense resources devoted to the industrialization drives of the Third World economies, while the basic material needs of the masses are overlooked.

[1/] China is not included among the developing countries in the statistics presented in Tables 1 and 2. In view of the rapid industrialization which has taken place in China, its inclusion would make the point of this paragraph even stronger.

These are controversial but extremely important arguments, on which there is a large literature; they will be considered later.

Debt, 'dependence' and development

The most important weakness of Third World industrial development is that a small but significant part of it has been financed by foreign borrowing, particularly during the 1970s. Much of this debt carries variable interest rates. The introduction of highly respective monetary base control policies by the Federal Reserve System in the U.S. in 1979, and the consequent quantum jump in nominal and real interest rates, have led to an enormous accumulation of debt (see Table 3), which the Third World countries are unable to service in the current depressed state of the world economy. The depression has been directly responsible for the extremely large adverse movement in the terms of trade against the non-oil producing developing economies, and for commodity prices being at their lowest level in real terms since the last Great Depression of the 1930s.

The above combination of events has brought industrial growth to a standstill in many Third World countries, including the most industrially advanced of the developing economies, such as Brazil and Mexico. There is a crucial difference between the effects of a balance of payments constraints on industry in the advanced countries and in the developing countries. In the former, the adverse impact comes essentially from the demand side. The balance of payments constraint obliges the Government to reduce economic activity by fiscal or monetary policy; reduced demand results in lower industrial production and under-utilization of industrial capacity. However, in most developing countries there is a 'supply side' effect which is often more significant than the effects of reduced demand. Industrial production in Third World countries is highly dependent on complementary inputs from abroad. A balance of payments constraint, by reducing imports, directly lowers production. Despite the fast industrial development of countries like Mexico or Brazil, their dependence on imports in this sense has increased rather than diminished over time. The dependence of domestic production on imports of goods and services (including technology) raises extremely important immediate as well as long-term policy questions for Third World countries.[1]

Other features of Third World industrial development

Even in a brief assessment of the long-term record of Third World industrialization, it is useful to remind ourself of two further aspects. First, as Arthur Lewis (1980) notes, the rate of industrial and economic progress achieved by the Third World economies during the last two decades was as recently as the 1950s regraded by many economists as inconceivable:

> 'In 1950...these people were sceptical of the capacity of less developed economies to grow rapidly because of inappropriate attitudes, institutions or climates. The sun was thought to be too hot for hard work, or the people too spendthrift, the Government too corrupt, the fertility rate too high, the religion too other-wordly, and so on.'

Secondly, and equally significantly, let us recall that until not too long ago there was a serious and highly influential Marxist literature which argued that only a socialist revolution in developing countries could bring about their industrialization. Basing his argument on the experience of Asia and Latin America, Paul Baran (1957), the leading Marxist theorist of development, suggested that the bourgeoisie in the developing countries, in view of its historical evolution, could not perform the same tasks of economic and social progress as it had done in the West. He maintained that the domination of society by an alliance between local elites and international capital ensured that the economic surplus would not be used to promote accumulation: the surplus would instead either be wasted by the domestic bourgeoisie or invested abroad rather than at home.[2]

Although Baran made major contributions to our understanding of the problems of economic development in many areas, this particular analysis has not been borne out by subsequent history. The industrially successful Third World countries during the last two decades have included not only socialist countries like China, but many large and small non-socialist countries, e.g. Brazil, India, Republic of Korea, Singapore and Hong Kong. More importantly, the historical record indicates that among the non-socialist countries, successful industrialization has been carried out under a variety of different economic regimes. A country like Brazil has relied on a relatively open trading regime and foreign investment by multinationals and achieved rapid industrial progress. On the other hand, India has followed the path of strict control on imports and foreign capital in building up its industrial base, which includes the most sophisticated capital goods industry in the Third World. (Lall, 1980). To be sure, the specific economic policies followed by a country affect the pace and the content of industrial development; more importantly, they have a significant bearing on how the fruits of industrial progress are distributed. But the essential point is that Third World countries with widely varying economic and political regimes have been successful in creating an industrial base - 'successful' in the sense of having a large and diversified manufacturing sector and possessing a trained labour force and the necessary skills for future industrial development to be self-sustaining.1/

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[1] These issues are examined below.

[2] See further MacEwan (1983).

INDUSTRIALIZATION AND ECONOMIC AND SOCIAL OBJECTIVES

There is a very large technical economic literature on the relationship between industrialization, distribution of income, employment creation and meeting the minimum basic material needs (e.g. food, clothing, shelter etc.) of the people. In the popular conception, the basic needs of the poor majority of the Third World are best met by rural development and increased agricultural production, rather than by promotion of industry. It is also suggested that, since industry tends to be capital-intensive, its development hampers growth

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1/ To be fair, MacEwan (1983) and Evans (1979) have recently modified the Marxist analysis to argue that, although industrialization in the capitalist periphery is possible, it may not be self-sustaining, since it is 'dependent capitalist development', based on debt and operations of foreign multinations and also because its gains are too unequally distributed. It remains to be seen whether this modified thesis is borne out by events.

of employment and hence the achievement of basic needs.

However, the relationship between basic needs and industrialization is a complex one, and a deeper analysis shows that these popular anti-industry conceptions are seriously misleading.[1] The main reason for this is that the satisfaction of basic needs on a sustainable basis requires economic growth in the sense of the development of the economy's productive potential. Although at any time a redistribution of the national output may enable a society to better meet the basic needs of its people, such needs can only be met on a long-term basis if there is expansion of the national economy. Economic growth generates increased employment and household incomes; equally importantly it increases government revenues, which may be spent on health, education, water supply and other basic needs of the people.

It has been argued that economic growth should not be an essential objective for the developing countries, since it does not necessarily enable a nation to achieve 'economic development'. That is certainly true, but it would be a mistake to assume that somehow one can obtain 'economic development' without 'economic growth'. Precisely because the benefits of economic growth trickle down automatically through the market to the disadvantaged groups in society, the state has to intervene on their behalf through appropriate fiscal and other policies. However, its ability to do so depends on the growth of public revenues, which in turn is a function of the expansion of the economy, for otherwise the result will only be inflation.

There is a large empirical literature which indicates a close relationship between long-run economic growth and industrialization. This evidence is supported by a systematic body of economic thought, which not only explains why manufacturing industry should expand faster than the economy as a whole during the course of economic development, but would also assign strategic causal significance to industry in raising the overall rate of growth of productivity in the economy. This analysis of the growth process also suggests that, within manufacturing, capital goods industries need to grow at a faster rate than consumer goods industries as the economy expands.[1]

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[1] For a further discussion of these issues, see Singh (1979).

It is sometimes suggested that agricultural development is a precondition for industrialization, since agriculture must in some sense provide a 'surplus' for industrial expansion. However, both in a priori terms and in the light of the results of recent empirical research on the Soviet Union (Ellman), China and Japan (Ishikawa), which casts doubt on these surplus theories, it does not seem to be a helpful approach to the relationship between agriculture and industrial development. The two are best regarded as being linked through a chain of cumulative and circular causation. The growth of agricultural productivity requires modern industrial inputs; at the same time it makes possible higher farm incomes and greater demand for industrial products. Such a perspective is particularly important for a discussion of economic policy in developing economies.

Turning to the relationship between industrial development and employment, it is necessary to examine both the direct and indirect effects of industrialization on employment. It is also essential to consider this question in terms of the long-term and sustainable creation of productive employment opportunities. As far as the direct effects are concerned, empirical evidence shows that employment elasticity of manufacturing industry in developing countries is on average about 0.7%, i.e., a one per cent increase in manufacturing production is associated on average with an 0.7% increase in employment. Thus over the period 1960-1975, industry in the Third World grew at a rate over 7% per annum, while industrial employment expanded by nearly 5% per annum. (UNIDO: 1979). This is considerably greater than the rate of growth of population in these countries, although it is somewhat lower than the rate of urbanization.

The more significant point is that industry also creates employment indirectly, by helping to increase production in other sectors of the economy, e.g. agriculture and services. In fact in agriculture, where there is normally disguised unemployment, the elasticity of employment with respect to output tends to be quite small, often near zero. The values of these elasticities are much higher in service industries; however, a sustainable growth of output and employment in many such industries, e.g. domestic transport and distribution, depends crucially on the expansion of primary and secondary sectors. As Neild (1979) rightly points out, 'many services are best viewed as a social charge on the production of goods rather than an alternative form of wealth creation. A nation cannot live by producing only health services except to the extent that such services enhance the production of industrial and agricultural products or to the very limited extent that they can be exported.' It is therefore difficult to see how sufficient productive employment opportunities in a developing economy can be created on a sustainable basis by means other than rapid industrialization.

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[1] For a fuller discussion of these issues and the references to the literature, the reader is referred to Singh (1981).

As far as economic policy is concerned, the relevant conclusions of the foregoing analysis may be summarized in the following two propositions:

- The basic material needs of the poor of the Third World can only be met on a long-term basis by a continuing expansion of their economies; and

- At the level of per capita GDP of a typical Third World economy, a one per cent increase in GDP normally entails a 1.5% increase in industrial production.

The International Labour Organization (the ILO), which first put forward the concept of basic needs, has estimated (ILO: 1976) that if the minimal needs of the poorest 20% of the Third World population are to be satisfied by the end of the century, national incomes in the Third World countries will need to grow on average at a rate of 7 to 8% per annum. This calculation allowed for the feasible redistribution of incomes within these countries. If such a goal for the required rate of economic growth to remove absolute poverty were accepted, it would imply an expansion of manufacturing industry in the Third World by over 10% per annum. By past standards (see Table 1), this suggests very fast industrialization of these economies.

THE WORLD ECONOMY IN THE 1980s AND 1990s AND ITS IMPLICATIONS FOR THIRD WORLD INDUSTRIALIZATION

Many economists would accept, the world economy today may be on the verge of another Great Depression. The rates of unemployment in countries like the U.S. are at their highest level since the last Depression. In the OECD countries, there are nearly 30 million people out of work. Manufacturing production in the U.K. has fallen by 20% since 1979 and the rate of unemployment there is now close to that recorded during the worst years of the 1930s Depression, and rising.

I should, however, like to call attention to two points with respect to the current world slump. First, under the present trade and payments regime, its main cause is not protection but what may be called a system of beggar-my-neighbour competitive deflation. Even without creating any trade barriers, when each country attempts to achieve a balance on its payments by deflating its economy, it pushes other countries into deficit and the net outcome is a vicious circle of deflation. This is what the world economy is suffering from today, rather than beggar-my-neighbour protection.

This distinction is very important. The present depression of the world economy is far less a consequence of trade protection than of free capital movements (particularly short-term capital flows across the exchanges) and highly restrictive monetary policies in countries like the U.S. and the U.K. The result is that, for example, even an intrinsically strong industrial country like France,[1/] with a Government committed to high levels of employment and economic growth, is unable to achieve a growth rate of even 2% without running into balance of payments difficulties, exchange rate instability, capital flight, etc. The financial markets have recently forced France into a sharp deflation.

Secondly, in considering slumps in capitalist economies, it is essential to take a long view. As Arthus Lewis (1978) notes, one group of economists

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[1/] France had the highest rate of industrial growth of the EEC countries over the last two decades.

'expect every recession to be over in eighteen months. The unfortunate consequence of this over-optimism is that measures to end the recession are underplayed. The other group are the children of the Apocalypse. Starting with Marx in 1848, every time there has been a recession critics have predicted the imminent arrival of Judgement Day. Capitalism will certainly pass away; all social and economic systems do. But its capacity to survive great shocks has been thoroughly demonstrated and has to be taken seriously by friend and foe alike.'

Hence if we take a long view and consider the present state of the world economy in historical terms, we observe that the two decades before the collapse of the Bretton Woods system and the oil price rise of the early 1970s were a golden age for the western industrial economies, and in many ways for the world economy as a whole.[1/] During this long period, countries like France, the Federal Republic of Germany and Britain maintained virtually full employment: a rather unusual phenomenon for capitalist economies. In fact, these countries were not only able to employ their own available labour forces, but also to give jobs to a significant number of workers from abroad. In the 1960s in West Germany and France, immigrant workers constituted something like 10 per cent of the employed labour force. In this golden age, a number of Third World nations also made major industrial strides.

The historically high long-term rates of growth of output, consumption, and employment achieved by the advanced countries in the 1950s and 1960s were accompanied by an enormous increase in world trade. World exports of manufactures grew at an unprecedented long-term rate of over 10% per annum - an expansion in which again a number of Third World countries also participated.

But the world economy is today in deep crisis. In 1980 the volume of world exports rose only by 0.5 %; in 1981 the volume actually contracted by 1.5%, which was the first decrease since 1975 and only the second in the past three decades. According to the latest GATT estimates, in 1982, there was a further contraction of 1.5% in the volume of world exports

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[1/] There is no implication here that these two events were the cause of the demise of the 'golden age' - they just mark significant landmarks in post-war economic history.

and 1983 is not expected to be much better. Although, for a number of reasons, the Third World as a whole was relatively unscathed (in terms of industrial development) by the first oil-price rise in 1974 and the subsequent slow-down in world trade, most Third World countries have found themselves during the last three years in serious balance of payments and external financial difficulties. These external disequilibria have forced them to severely curtail their industrialization and development programmes.

It was noted above, that the Third World countries require an annual rate of economic growth of 6 to 7% and of industrial growth of about 10% for compelling economic and social reasons: to reduce absolute poverty and to expand employment opportunities for a growing and increasingly urban population. Given this inescapable objectives, what can the Third World countries do in the current circumstances of the world economy?

One obvious answer is that their efforts should be directed towards stimulating the growth of the whole world economy. For if the advanced industrial countries and the world economy grew faster, the Third World would benefit from the increased capacity of the advanced countries to import their manufactures, increased commodity and raw-material prices, and hopefully also from the larger amount of foreign aid, loans or investment which the industrial countries might then be willing to provide. However, the developing countries (because of their small share in world economy) cannot do all that much to increase world economic growth. Only the US and the advanced countries together have between them the initiative and the ability to do so.[1/]

Unfortunately all the signs from previous economic summits such as at Versailles and Ottawa have been that the industrial countries are unlikely to take that course of action. In principle, it is possible that good sense may finally prevail at the coming summit at Williamsburg and the rich nations may agree on a programme of collective reflation, and take the other necessary measures of international economic and financial co-operation to put the world economy back on its long-term trend rate of growth achieved during the golden

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[1/] Even the US alone can no longer act as a 'locomotive' for the world economy as the experience of the 1976-1978 reflation initiated by President Carter showed.

age. However, it is not probable. Similarly it is possible that in view of the serious debt situation of large Latin American countries like Brazil, Mexico and Argentina and the threat this poses to the viability of the international financial system, the US may embark on another Marshall Plan. It will be recalled that to save Western Europe from the perceived communist threat, between 1948 and 1952, the Government of the US devoted annually 2.8 per cent of its GDP to foreign economic aid under the Marshall Plan - compared with a total foreign aid figure of 0.2 per cent today. But again although such a happy sequence is possible, it is not probable. Today, the Third World countries have to contend with the probability that the growth rate of the world economy during the current decade will lie in the lower range of the available estimates - which vary from a pessimistic -2% p.a. to a highly optimistic +3%.

The crucial consequence for the Third World of the expected long-term deceleration in world economic growth is that world trade will expand much more slowly than in the 'golden age'. This will necessitate a re-examination of the general Third World perspective (as illustrated for example by the traditional UNCTAD view), on the relationship between trade and development. For if overall trade increased very slowly, then even if there were no tariff or non-tariff barriers in advanced countries to imports of Third World manufactures, the latter would still probably only be able to grow at a pace inadequate to generate the socially required rates of economic expansion in the developing countries (in the sense mentioned earlier).

The policy conclusion to be drawn from this analysis is that in the coming decade the countries of the South will have to rely much more on their internal dynamics, on the growth of internal demand, rather than on world market forces to generate economic expansion. They will need greater import substitution, more internal technological development and more economic and technological co-operation among themselves.

This change of economic course raises a whole range of economic policy issues, some of which will be outlined in the next section. However, at the very outset we should note an extremely important preliminary point. It must be recognized that such a programme is easier for the large semi-industrial countries like Mexico, Brazil or India to implement than for the smaller or less developed economies. This is for two reasons. First, the 'large' size of the former means that they are in principle much more capable of insulating themselves from the impulses of the world economy; foreign trade normally accounts for a relatively smaller proportion of their GDP as they usually have large enough internal markets for reaping economies of scale. In principle, the rate of growth of such economies is therefore much less dependent on the growth of world economy. Secondly, the semi-industrial economies already possess fairly diversified industrial sectors with trained manpower, managerial and organization skills, so that on the supply side, they have the possibilities of self-sustained internal growth to a degree which is much less open to economies at lower levels of industrialization.

It is, however, important to stress that the policy emphasis on internal growth in large developing countries does not mean that export opportunities or the export effort should be neglected. For example many semi-industrial countries have an enormous export potential in the Middle Eastern markets (in contention with the industrial countries) as well as in other developing economies. Some of them (e.g. India, China, Republic of Korea) also have opportunities for increasing their foreign exchange earnings by 'export' of labour to the Middle Eastern oil-producers. In view of the external financial gap which many semi-industrial countries will face for a long time to come (not least because of previous debt accumulations), it is clearly necessary for them to make full use of such opportunities to the mutual benefit of themselves as well as of the Middle East oil producers. The main burden of the analysis presented here is that in order for the NICs to continue to achieve fast growth in a slow growing world economy, the essential dynamic will have to be provided increasingly by internal factors rather than by the external economy.

The problem which small countries face in such a situation are far more difficult and in case of some of them may even be intractable. Small countries must necessarily rely on trade and specialization in order to achieve industrial development. There have therefore been a number of schemes for the establishment of common markets of contiguous countries to promote these aims. However, these integration schemes in the developing economies have to date not been conspicuously successful. The main reason is the large differences in the levels of development of the various countries; in a free trade situation, the more developed regions or countries have a tendency to develop even further without commensurate development in the less developed regions. (Kaldor, 1970). For example, it is certainly arguable that industrial development in a country like Tanzania was aided by that country's withdrawal from the East African common market and thus from competition with the more advanced Kenyan manufacturing industry. Nevertheless, industrialization in smaller developing countries does require much more intra-developing country trade; the latter is more likely to increase and to aid the development of all participating countries if it is planned rather than free trade. The international development agencies such as the UNIDO can play an important role by helping to create and implementing such arrangements.

INDUSTRIAL STRATEGY AND POLICY FOR THE THIRD WORLD: THE SHORT- AND THE LONG-TERM ISSUES

In analyzing questions of economic policy, it may be useful to consider in more specific terms the industrial situation which the developing countries are faced with today. Unlike the economic theorist's models, economic policy - even long-term policy - must start from the actual current situation. I shall, therefore, very briefly describe the present position in a small number of developing economies.

First, the increasingly severe balance of payments constraint in Tanzania during the last three years has pushed the industrial economy to progressively lower levels of capacity utilization. Because the country cannot afford the necessary imports of industrial raw materials, at present only 25% of the manufacturing capacity is being utilized. This, however, does not only lead to layoffs, dislocation and disequilibrium in industry, but also generates severe disequilibria in other spheres. For example, the Government budget imbalances at which the IMF directs its accusing finger are entirely a consequence of this industrial disequilibrium. Sales taxes account for something like 60% of the total recurrent revenue of the

Government. It has been estimated that if industry were operating at its normal capacity, sales and excise tax revenues would be doubled; that would not only eliminate the current fiscal deficit but also make a significant contribution to the capital account (Singh: 1982). Similarly low levels of capacity utilization and production adversely affect agricultural production, through reduced supply of direct agricultural inputs (fertilizer, transport equipment, etc.) and equally significantly through the lower availability of the so-called "incentive" goods for farmers (soap, cooking oil, etc.).

Parenthetically, although there is such a high degree of underutilization of existing capacity, foreign aid still continues to be provided to Tanzania for long-term projects to create new capacity. Apart from the indirect foreign exchange costs the new projects inevitably entail, they absorb scarce managerial and governmental resources which could be more profitably used elsewhere. It is clear that if instead of foreign aid being given to create new industrial capacity, a fraction of what is provided now is given for increasing production and utilization of existing capacity, it would be of far greater benefit in the present economic circumstances.

Although Tanzania is a small developing country at a low level of industrial development, the situation of the industrial economy in a relatively much more advanced country like Mexico is not all that different, at least in the short-term. The balance of payments constraint has led to the curtailment of essential imports needed for normal utilization of existing industrial capacity; this in turn generates the usual disequilibrium in other economic spheres with extremely serious social and political consequences. As Mexico is a more open and sophisticated monetary economy, these disequilibria are reflected in a particularly acute form in inflation, devaluations, currency and financial instability. Again an increase in industrial capacity utilization through enhanced import capacity would lead immediately to significant improvements in both the real and the financial economies.

The Brazilian industrial economy is also in equally serious straits. In view of the size of the Brazilian debt, it is estimated that if the world economy grows only at a slow rate (as suggested in the last section), the required servicing of the debt would condemn Brazil to a zero or a negative rate of economic growth for a number of years. (This estimate is based on the assumption that the existing observed relationships between economic variables, e.g., income elasticity of demand for imports, the world income elasticity of demand for Brazilian exports, persists.) The social consequence of prolonged economic stagnation in a country with a rapidly expanding labour force such as Brazil need hardly be spelled out.

How did all these diverse economies - a poor African country following a "socialist" path, and capitalist industrial giants of the Third World such as Brazil and Mexico - come to this pass? The answer lies in the fact that during the golden age many developing countries, including these three, created industrial structures which were highly and often increasingly dependent on imports and private capital inflows. The diversification of these economies from producing simply agricultural products and minerals to the production of manufactures did not, as envisaged, reduce their degree of dependence on the world economy; instead the latter appreciably increased. Mexico may be an extreme case in this respect, but in the short span of five years between 1976 and 1981, imports as a proportion of GDP in that country rose from 10% to 15%.

During the golden age, as seen in section II, many of these countries undoubtedly benefited on balance from their greater integration with the world economy in much the way orthodox economics extols the virtues of increased trade and specialization. However, it also left these economies extremely vulnerable - a concept which orthodox economics usually ignores altogether. In the last Great Depression Keynes observed:

> - "We do not wish...to be at the mercy of world forces working out, or trying to work out, some uniform equilibrium according to the ideal principles, if they can be called such, of laissez-faire capitalism... It is my central contention....that we all need to be as free as possible from economic changes elsewhere, in order to make our own favourite experiments.... and that a deliberate movement towards greater national self-sufficiency will make our own task easier."(Keynes, 1933).

Keynes was here calling attention to a significant negative aspect of the international division of labour and specialization. The more a country is specialized, the more its growth will be dependent on the rise in exports - the more easily, that is, might its growth be checked by demand limits which, unlike those arising from domestic demand, the country's own economic policy may not be able to overcome, given the specialization. The vulnerability of a country is in this sense not only a function of the degree of specialization (the import content of its production), but also depends on its level of industrial development and the nature of its specialization. Ceteris paribus, it will for example, be greater if the production of exportable surpluses involves goods which are subject to stiff foreign competition and/or changes in the level or composition of other countries' final demand. The country's vulnerability is also greater if its exportable surpluses serve to meet imports of essential wage goods and their means of production. There are clearly greater possibilities of insulating the growth of the economy from an insufficient rise in its import capacity, if imports mainly consist of "luxury" goods and/or their means of production. Orthodox trade theory can ignore this problem of vulnerability only by assuming that there will always obtain full utilization of resources: if integration with the world economy leads to lower levels of overall capacity utilization, the traditional argument in terms of greater efficiency of resource utilization is no longer necessarily valid.[1/]

In the context of this discussion it is interesting to reflect briefly on the case of the Indian economy in contrast to those of Mexico or Brazil. As India has long chosen to follow a policy of "self-reliance", and it is relatively much less integrated with the world economy than the latter two countries, its rate of economic growth is more or less independent of the world growth rate. The indigenous factors - e.g., the weather and the growth of agriculture - are far more important in determining the expansion of the Indian economy than the world economic situation.

Thus, as far as short-term industrial policy in countries like Tanzania, Brazil or Mexico is concerned, there is no option except to: (a) reduce the

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[1/] See further Keynes (1933), De Vivo and Pivetti (1980) and Crotty (1983). Singh (1981).

propensity to import and (b) to enhance import capacity to the extent it is possible. Both (a) and (b) are clearly extremely difficult to achieve in the present circumstances of the world economy and require exceptional measures suited to the particular conditions of each country. For a discussion of such short-term measures in relation to Tanzania's economy, the reader is referred to Singh (1982).

However, in a slow growing world economy, even in the long-term, the creation of viable industrial structures requires strategic attention to be focused on both (a) and (b), particularly the former. This in turn requires reconsideration of traditional economic policies on the demand as well as the supply side. It is not possible to do more than to conclude by listing the most important questions with respect to each; reasons of space preclude their proper discussion here.

- In order to ensure that developing countries are able to achieve the desired long-term rates of growth of demand by domestic means, they will have to pay particular attention to distribution of income. This is so not only for reasons of securing social harmony as industrialization proceeds, but also for narrowly economic considerations. As the Third World economies expand and become internally more integrated, the under-consumptionist arguments will become much more relevant for many of them. Already there is an influential school of thought in India which argues that inequalities in income distribution have been responsible for a deceleration in the country's long-term rate of industrial growth.[1/]

- On the supply side, with reduced international competition, questions of micro-economic efficiency assume special significance. Two points may, however, be noted in this respect. First, micro-economic efficiency in the dynamic sense (e.g., the rate of growth of productivity) is essentially a function of the rate of growth of a firm's or industry's production (pace Verdoon's law). Secondly, to the extent it is agreed that x-inefficiency may be reduced by competition, in the large semi-industrial

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[1/] The author is personally not persuaded by this thesis. There is, however, a large literature on the subject. See Dutt (1982) for references and also for the development of a rigorous theoretical argument along these lines.

economies, in principle, domestic competition can be encouraged to replace foreign competition.

- The developing countries in pursuing the path of internal growth must clearly also learn from the failures as well as successes of import-substitution policies practiced in the past. The Appendix briefly examines the experience of what can be regarded as the most successful of import-substituting economies, namely that of Japan.

APPENDIX[1]

THE ORGANIZATION OF PRODUCTION: THE JAPANESE EXPERIENCE

The post-war experience of Japan is highly relevant to the developing countries, particularly the large semi-industrial economies, for a number of reasons. First, let us recall that in the early 1950s Japan produced less steel than countries like Mexico, Brazil and India do today, and was largely an exporter of labour-intensive products. Yet, less than two decades later, Japan was producing more than a hundred million tons of steel; and Japanese workers, starting from Asian wage levels, were well on the way to achieving European standards of real wages. It seems to be an entirely appropriate question to ask why a large country such as Mexico, with its oil, should not repeat Japanese industrial history over the next twenty years, especially as Japan's growth was achieved without oil, and starting from a similar, if not lower, level of industrial development.

Secondly, the Japanese example is extremely important in another context: in relation to the desirability of using world prices and allocating resources according to the orthodox economic doctrine of comparative advantage. In the early 1950s, Japan, as a country with a relatively large population and a labour surplus economy, was advised by orthodox economists to specialize in the labour-intensive manufactures in which its comparative advantage was thought to lie. The Japanese costs of producing steel at that time were twice world prices, and therefore the advice was to produce and export, for example, textiles and not steel. However, the Japanese rejected this prescription and instead embarked on a structural policy whose cornerstone was the purposive and rapid development of steel, chemicals, machinery and other heavy industries, regardless of their short-run comparative disadvantage. It is worth quoting the rationale of this industrial policy given by Vice-Minister Ojimi, of the Japanese Ministry of International Trade and Industry (MITI).

> - "The MITI decided to establish in Japan industries which require intensive employment of capital and technology, industries that in

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[1] This appendix is based on section III of Singh (1982a).

> consideration of comparative cost of production should be the most inappropriate for Japan, industries such as steel, oil-refining, petro-chemicals, automobiles, aircraft, industrial machinery of all sorts and electronics, including electronic computers. From a short-run, static viewpoint, encouragement of such industries would seem to conflict with economic rationalism. But, from a long-range viewpoint, these are precisely the industries where income elasticity of demand is high, technological progress is rapid, and labour productivity rises fast. It was clear that without these industries it would be difficult to employ a population of 100 million and raise their standard of living to that of Europe and America with light industries alone; whether right or wrong, Japan had to have these heavy and chemical industries. According to Napoleon and Clausewitz, the secret of a successful strategy is the concentration of fighting power on the main battle ground; fortunately, owing to good luck and wisdom spawned by necessity, Japan has been able to concentrate its scant capital in strategic industries." (OECD: 1972).

Although in the 1950s and early 1960s this structural policy could perhaps be justified in orthodox infant industry terms, the Japanese have continued with it ever since. Recent thinking about the appropriate long-term industrial structure for Japan envisages a shift in the 1980s towards "knowledge-intensive" industries, such as electronic computers, electric cars, new synthetics, communications equipment, the more sophisticated products of heavy and chemical industries and software. (Singh: 1980).

How does Japanese industrial policy actually work? Its fundamental basis is a national consensus and a close relationship between Government and enterprises. It is a highly interventionist industrial policy which would make an orthodox economist bristle. Professor Caves of Harvard University and Professor Ukeusa, have described this policy in the following terms.

> -" Each sector of the Japanese economy has a cliental relation to a ministry or agency of the Government. The ministry, in addition to its various statutory means of dealing with the

economic sector, holds a general implied administrative responsibility and authority that goes well beyond what is customary in the United States and other Western countries. While the Ministry of International Trade and Industry (MITI) plays the most prominent role, its operations are not distinctive. The industrial bureaus of MITI proliferate sectoral targets and plans; they confer, they tinker, they exhort. This is the "economics by admonition" to a degree inconceivable in Washington or London. Business makes few major decisions without consulting the appropriate governmental authority; the same is true in reverse". (Quotation in the original). (Caves and Ukeusa 1976, p. 149).

It is of interest to observe how conventional economic analysis assesses the operations of such an industrial policy. Let us quote Professors Caves and Ukeusa again:

> - "Japanese industrial policy appears in some instances to have served the nation's economic interests, in others to have hindered development. Japan's antimonopoly policy has been a hobbled and limited copy of that long used in the United States. Its enforcement has fallen far short of the US model - itself hardly an example of perfect adherence. Its failures have placed significant costs on the Japanese economy in the form of allocative inefficiency and diversion of rivalry into costly non-price forms. We cannot detect any compensating gains". (Ibid.)

Such an appraisal by orthodox neo-classical economists - and Professor Caves is certainly one of the best practitioners of this genre - is simply astonishing. It may be observed that (a) the transformation and expansion of the Japanese industrial economy over the last three decades has not only been more rapid than that of other industrial economies, but it is among the most spectacular in the history of industrialization, and (b) throughout this period the Japanese Government has followed an active interventionist industry policy. In the context of (a) and (b), Caves and Ukeusa's conclusion says less about the merits or demerits of this industrial policy than about the degeneracy of the neo-classical paradigm: a system of analysis which is unable to cope with real world situations such as that provided by industrial development in countries like Japan. So notwithstanding the "allocative inefficiency" in Japan as perceived by orthodox economics, the developing countries have a great deal to learn about the supply side and the organization of production from the Japanese experience.

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STRATEGIES AND POLICIES FOR INDUSTRIAL DEVELOPMENT IN THE DEVELOPING COUNTRIES: SELECTED ISSUES by Boguslaw Sosnowski*

PAST EXPERIENCE AND PRESENT ISSUES

The industrial development of the developing countries in the 1970s was generally of an initiative nature in a two-fold sense:

- in terms of the structural patterns; and
- in terms of the technological patterns.

As a totality, therefore, the developing countries have increased their dependence on the industrialized countries with long-run consequences. Their manufacturing exports to industrialized countries, in terms of their contribution to GDP, increased from ca. 14% in 1970 to over 20% in 1980. At the same time, however, the share of imports of manufactures from industrialized countries in their local consumption went up from around 39% in 1970 to over 45% in 1980.

Parallel to that, industrialized countries dependence on the developing countries' markets has increased substantially. It is estimated that the developing countries' share in industrialized countries' imports of manufactures went up from 5.3% in 1970 to over 10% in 1980. In capital goods sector this dependency is extremely high. It is estimated that in recent years some 40% of the industrialized countries' capital goods export went to developing countries. There was a significant increase in the importance of developing countries as markets for the industrialized countries. The share of developing countries in the total exports of the US, the European Community (EC) and Japan (excluding the EC intra-trade) rose from about 30% in 1970 to almost 40% in 1980. That phenomena reflects not only the rising potential of developing countries but above all the saturation of the industrialized countries' markets.

The developing countries gains in manufacturing exports are, however, very limited in terms of beneficiaries. The bulk of the gain has been enjoyed by Hong Kong, Taiwan Province and the Republic of Korea, followed by Mexico, India, Brazil, Singapore, Israel and Malaysia. Thus if one disaggregates the picture, the majority of developing countries have not imporved their industrial position in the world economy and in particular this refers to the least developed countries (LDCs). The whole idea of international redeployment and restructuring has proved a rather unsuccessful attempt for the majority of developing countries. In effect, new approaches are needed and in particular with regard to the least developed countries.

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* Dr. Boguslaw Sosnowski, Assistant Professor, Central School of Planning and Statistics, Warsaw, Poland.

Transnational corporations (TNCs) have become a very important factor of the world's economy over the past two decades. However, their contributions to the development of the Third World was of a very limited nature. Over 95% of foreign direct investment flows originate from the OECD countries and about three-quarters of the flows are channelled to other OECD countries. Among the recipient developing countries six of them accounted for between 50% and 75% of all inflows.

The vast majority of developing countries have not attracted substantial amounts of capital and technology flows. Thus, the contribution of TNCs to the strengthening of the industrial and technological capabilities, as well as export growth of developing countries has on the whole by-passed those that badly need foreign resources namely the low-income countries.

The implications of the fact that a large proportion of various international economic transactions takes place within TNCs are not yet fully known. Intra-firm transactions are of particular concern to developing countries, since special capabilities are required to regulate and monitor pricing and payment methods used in these exchanges.

East-South trade was the most dynamic component of the world trade over the period 1955-1970. The main reasons behind that phenomena were the complementary structure of the domestic demand and the legal framework of the clearing agreements. In the last decade the rate of East-South trade slowed down substantially. Both the developing and socialist countries are supply constrained and import oriented economies. There is a structural lack of production capacities in those countries as compared to the structural surplus of supply in the industrialized countries.

The developing and socialist countries, in trying to satisfy the internal demand, stimulate imports and sell abroad only the surplus of production over domestic demand. The importance of exports is therefore only limited to the currency earning activity to pay for required imports. The long-term solution for the further increase in East-South trade is the change in the structure of the respective economies, the shift from intra-industries exchange to the intra-branch trade and more complex and long-term forms of industrial cooperation.

The debt problems of the developing countries are the most crucial aspect of the present world economic situation. Falling export sales and high interest rates have resulted in acute debt payment problems. The medium-and long-term debt of the developing countries now stands at $ 530 billion, and including short-term debt brings the total debt of the developing countries to some $ 700 billion.

The global recession has contributed greatly to the current difficulties of the developing countries. Between 1980 and 1982 falling export income and rising debt service have together had a negative impact of about $ 70 billion on the balance of payments of the developing countries. About half the increase in the Third World debt service payments since 1980 has been due to higher interest rates. In response to the tremendous increase in the debt burden the developing countries have drained their reserves and cut back on imports. That in turn, diminished the export possibilities of the industrialized countries.

It is necessary, then to look for a global solution of the total debt of the developing countries as to increase the chance for the stable and long-term world recovery.

STRATEGIC OPTIONS FOR DEVELOPMENT POLICY IN THE 1980s AND 1990s

The international economic crisis, the mounting debt pressure on the developing countries and rising international protectionism, point out that the continuation of the present imitation strategy based on continuously growing import dependency is unlikely to produce any positive results unless new approaches for global industrial strategy are worked out.

It seems advisable therefore to look for more innovative strategy and to reshape the industrial priorities within the developing countries' economies. The elements of this new strategy could include:

- a reorientation of industrial priorities to the needs of local agriculture, food production, clothing and building materials production;
- a reorientation of technological priorities to the development and utilization of local technologies and skills;
- a reorientation of industrial policies to the development of the soft part of industrial capacities;
- the transfer of resources from armaments to the financing of socio-economic development programmes; and
- a reorientation of foreign economic policy towards intra-regional integration among the developing countries and more extensive use of the possibilities offered by the socialist countries.

The top position in these industrial priorities ascribed to agriculture has at least a three-fold justification:

- it serves the interests of the majority of professionally active population - 70%-90%;

- it provides the nutrition for the fast growing population; and

- it creates an enlarged internal market and thus provides for the establishment of a modern industrial society. If we look at the experience of the socialist countries we can conclude that only those which managed to assign a proper place to agriculture in their industrialization drive have achieved balanced economic and social performance over the long run. The others which neglected the agricultural sector are facing serious difficulties in their development process.

The totality of foreign dependency may be in the last resort reduced to simply technology. Much has been done so far to decrease the unfavourable terms of the acquisition of technology. Far too little attention has, however, been given to the creation of indigenous technological capabilities. As long as the developing countries do not introduce some technological protectionism and appropriate regulatory mechanism in technology imports their innovative strategy can hardly be visulaized.

Again if we look at some historical experience, a negative example of some of the socialist countries could be mentioned. They too were trying to overcome local technological inadequacies by massive inflows of technology from abroad, with sometimes limited success. On the other hand, a highly protectionistic policy of Japan in the 1950s and 1960s could be quoted as the way to upgrade the existing and developing new indigenous technologies, thus decreasing the technological dependence. It is well known that only locally generated technologies can best fit local social traditions, cultural patterns, resource limitations, etc.

Most of the attention so far has been given to the development of physical industrial facilities. At the same time the whole soft part of industrial capacities has been neglected. The lack of standards, norms, proper industrial statistics and satisfactory training programmes are only some examples to be mentioned. The coming decade should be the decade of the development of soft industrial capacities which particularly in the developing countries constitute serious constraints to industrial development efforts.

The share of developing countries in the total world armaments financial outlays is ca. 15% which amounted in 1982 to slightly below $ 100 billion. In the 1970s in over 100 developing countries, GNP increased about 50%, whereas the military outlays rose over 70%. During the last decade, military spending consumed ca. 5-6% of GNP, compared to health and education share in GNP of 1.2% and 3.6% respectively.

There is no point in arguing about the adverse effects of substantial military spending on the socio-economic advancement of developing countries. One could only mention that the import of military hardware and its servicing severly drains foreign currency resources as well as imposing costly demands on the skilled labour. This problem is only mentioned here so as not to be overlooked in the elaboration of general approaches to shape the future industrial strategy and search for resources to implement this strategy.

Any industrial development passes through an infancy period. During this period a need for preferential treatment of the industrial products in some markets is highly important. Therefore, one should argue that the developing countries should open more their markets for intra-regional cooperation. So far there are no wide-spread examples of the reciprocal preferential treatment among these countries whereas they are widely used among the industrialized countries. Why not follow some old routes?

The socialist countries are continuously somehow aside of the processes taking place in the world economy. The reasons are manifold and it is not the intention to discuss them here. On the other hand, it should be pointed out that the relations with them have some obvious advantages for the developing countries, it is enough to mention the various forms of long-term industrial cooperation often on concessionary terms and thus advantageous for the developing countries. The adverse influence of

TNCs investments in the exploitation of natural resources in the developing countries and the subsequent establishment of enclave industries could be mentioned as a negative example in the North-South cooperation not being followed by the socialist countries.

SOME INTERNATIONAL ACTIONS TO BE TAKEN

The above presented general issues touching upon constraints in industrial development seem to indicate the necessity to pursue a new innovative strategy and may influence the nature and directions of the activities which could be initiated, organized and/or implemented by UNIDO. This international organization should concentrate in future mainly on the following activites.

Technical assitance in establishing national, regional and inter-regional centres for the development of agriculture related technologies. This could be supplemented by the extensive educational activity in this respect. Direct financial participation of the UN system in industrial development should be mainly concentrated in this field.

The Technology Advisory Service of UNIDO should be redirected to the problems of the development and utilization of local technologies instead of concentrating exclusively on the terms of technology inflow. To reinforce the "localization" of the technology it could be advisable to undertake efforts in redirecting the international financial assistance mainly to the projects based on local technologies.

Much more technical assistance should be offered in the field of the development of the soft industrial capacities. There is an urgent need to identify the problem in the developing countries and provide an in-depth analysis on the consequences of the lack of soft industrial capacities in hampering the growth of industrial output and structure of the balanced socio-economic development.

Promotion of various forms of intra-regional and inter-regional cooperation schemes should be reinforced. A need for the assessment of the results achieved so far in the ECDC programmes and the experience gained to date is of paramount importance.

Much more attention should be given to the potential available within the socialist countries both in terms of their industrial experience (e.g., the operation of the nationalized sector, the role of technology import, the creation of indigenous technological base) and in terms of their possible contribution to industrial development processes in the developing countries (e.g., redeployment opportunities, industrial cooperation possibilities, assistance in the skill formation). An urgent need for more study and exploratory work in this area should be spelled out. So far this seems to be a relatively neglected area.

DEVELOPMENT AND INDUSTRIALIZATION by Joachim Peter Storfa*

DEVELOPMENT AND INDUSTRIALIZATION

It is difficult to conceive of economic development without industrialization. Thus, without industrialization there is no development of the economy. However, this does not mean that industrialization is a synonym for development. Most of the Governments of the developing countries see in industrialization the sole possibility of escaping from the vicious circle of poverty, underdevelopment, and dependence. When one looks at the industrialized countries, these Governments would appear to be right, because there is in fact a causal relationship between a considerable percentage of industrial products in a nation's gross national product and high per capita income.

The developing countries' share in world industrial production is extraordinarily low. In 1981, this share was 10.3%, which represented an increase over the 1960s, when it was constant at 7%. In any case, the target of 25% laid down in the so-called Lima Declaration is still a long way off. If in addition one takes into account the effects of the world economic crisis, which has now been with us for several years, namely the enormous foreign debts of many developing countries, increasing protectionist tendencies, high interest rates, mounting energy costs, etc., then the goal of 25% of world industrial production can only be considered utopian. The equation that has been drawn between industrialization and development has, in recent decades, led a number of developing countries to undertake sustained efforts to industrialize. In so doing, they have copied in toto the mode of industrialization of the advanced nations. A major characteristic of this borrowed process of industrialization is an unshakable faith in the omnipotence of industrial technology. The social and cultural costs of industrialization conceived along these lines have been given secondary importance, the concept of "development" has been interpreted exclusively in technico-economic terms and considerations of principle regarding the feasibility of carrying over and copying the models developed in the industrialized nations have not even had the good fortune to be discussed.

Without intending to become embroiled in philosophical problems - such as for example, whether industrial civilization is not a circumscribed historical phenomenon which is valid only for certain societies and the transplantation of which to other societies and cultures is not at the

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[*] Mr. Joachim Peter Storfa, Federal Chancellor's Office, Co-operation for Development, Austria.

very least questionable - we should like to discuss briefly two aspects of the industrialization problem in general, namely:

- the objective limits of industrialization; and
- the specific character of the imitative industrialization process in the developing countries.

The objective limits

The ideology of unlimited progress - the characteristic conceptual setting for industrial technologies - is a kind of faith which has accompanied the industrial civilization since its beginnings. Today, however, more than ever before, doubts are beginning to arise, above all in the industrialized nations themselves. The conviction that there are no limits to man's dominion over nature is being exposed, some would say, as a myth, like the idea that nature will in any event restore its own balance regardless of the industrial society's interventions through its various forms of production. Actually, let it be noted in passing, even the physics of the last century imposed its constraints on this ideology, namely through the discovery of the second law of thermodynamics, which indicates a progressive reduction of the possibility of transforming heat into energy. It is, however, the rural economy, totally neglected by the partisans of industrialization, and above all the economy of living organizms that reveal the limits of technology.

An analysis of the structure of the agrarian economy shows that needs increase expotentially as they are satisfied. Robert Malthus formulated this discovery as the law of the constant scarcity of resources in relating to the number of births. But Malthus also discovered another law which has extraordinary relevance in our age - the law of the decreasing productivity of the cultivated land. This is more generally known today as the law of the decreasing productivity of non-renewable resources. The importance of this discovery has been dramatically revealed since chemical fertilizers first came to be systematically used in agriculture.

Between 1934 and 1976, world cereal production scarcely doubled, while the use of chemical fertilizers (especially nitrate fertilizers) increased by a factor of 8. In other words, in order to obtain in the future a constant quantity of products from a given area, it will be necessary to use more and more nitrates. The soil's need for nitrate fertilizers increases to the degree that it is satisfied. This means that productivity declines. Of course, this also holds for the use of fossil fuels, since in the days when the deposits lay practically on the surface far less energy was required for their extraction than today. In other words, as time goes by one tonne of energy yields less and less energy.

The idea that the discovery of a "pure" energy source (e.g., nuclear energy) would ensure the unlimited expansion of production is also simply an illusion. The same second law of thermodynamics referred to above states that all transformation of energy involves a loss of heat to the environment, something that must inevitably lead to an increase in atmospheric temperature, with all its related global consequences.

The imitative industrialization process

In developing countries the industrialization process begins with the production of day-to-day consumer goods, for which there is generally a relatively large internal market. Foods, fabrics, clothing, leather goods, footwear, furniture, etc., all items previously imported for the consumption of the land-holding and ruling social class, are now produced by domestic industry. This industrialization strategy, known as the import-substitution strategy, does nothing to change the patterns of internal demand nor does it alter the distribution of income among the different social groups, (UNIDO, Industry 2000 - New Perspectives: 77).

It is of central importance to bear in mind that the technology required to produce these consumer goods is itself imported from the industrialized nations where it was developed. This technology has specific characteristics which make its application in a developing country problematical, even though our first impression may be different since

- the limits of the internal market take some time to reach, given that the capacity of the machinery does not grow particularly rapidly, and, consequently, neither does the "optimum size of the enterprise"; and

- with the exception of synthetic fibres, the substitution of raw materials plays a secondary role.

"The process of industrialization is based on processes and patterns pioneered abroad and is to some degree directed from abroad. Instead of being a mechanism by which a country can begin its march along the road to self-sustained industrialization, the import substitution path may well serve simply to reinforce the status quo set of international power relations". (Ibid: 77).

Decisions to invest in industrial projects are therefore reached on the basis of the demand situation in an internal market which is made up of the elites in the developing countries.

In his studies for the Economic Commission for Latin America (ECLA), Celso Furtado has demonstrated that the cultural "dualism" one so often finds in developing nations - i.e., the contrast between imported and ever changing models of consumption, on the one hand, and the traditional models, on the other - is projected on to the structure of the production systems in these countries. The origin of this dualism lies in the control of technological progress by one or more centres. Its result is an imbalance in the factors of production characterized by a constant and structurally determined surplus of manpower, which brings with it an irrational and inequitable distribution of income. Technological progress places the industrialized metropolitan nations in a position to impose specific models of consumption perpetuating and deepening even further the developing countries' status of dependence vis-à-vis these nations.

The thesis that the adoption by the developing countries of cultural models borrowed from Europe or the United States of America is an impediment to independent and self-centred development is not a new one. As long ago as 1951, at the annual meeting of the American Economic Association, Ragnar Nurske of Columbia University and John H. Adler, the World Bank economist, referred to this problem. The so-called "demonstration effects" theory which Dusenberry had developed for the United States was applied by Nurske on a North-South basis, i.e., between industrialized and developing nations. Pointing out that there was possibly too much copying throughout the world of United States production methods, Nurske concentrated his analysis on consumption and concluded that it would not be possible to aid the developing countries until the negative international consequences of the demonstration effects were overcome.

Both these economists were convinced that the promotion of industrial projects could not be the sole instrument for economic development. The indispensable condition for development, in their view, was the "balanced growth" of all sectors of the economy.

A reading of a wide range of writing on the problems of Third World industrialization reveals an automatic and apparently natural identification of the objective interests of the developing country with the interests of the businessman in that country. This "equation of interests" is not at all immediately evident and there is no theory to substantiate it. It might be useful at this point to quote the words of John H. Adler of the World Bank at the 1951 meeting to which has already been referred: "... it is hard to see how the sum of all private entrepreneurial decisions will produce the maximum of social benefits for the economy as a whole. From the point of view of the individual entrepreneur it may be quite rational and most profitable to invest in the establishment of movie houses, lipstick factories or in the construction of luxury type real estate; but from the point of view of the economy as a whole and particularly under the criteria of its 'external-economies significance', this type of investment is decidedly undesirable".

The alternative as to whether to use raw materials available in the developing country or to use substitute synthetic materials, which must of course be imported, is of interest only to the country; for the individual businessman it is nothing more than a question of costs, at least until such time as he turns his attention to production and thus to the consumption of raw materials. Nor is it at all clear why an entrepreneur should necessarily be interested in eliminating unemployment or in the greater integration of the labour force in the production process.

It is, however, during the "difficult" phase that the contradictions and shortcomings of the imitative industrialization process become most evident. Once the limits of the internal market for day-to-day consumer goods have been reached, there are, as Urs Müller-Plattenberg has pointed out, two possible ways of continuing the industrialization process:

- going on to export the goods produced until that time; and
- going on to the production of other goods.

But exports can only be successful if it proves possible to penetrate the markets of the industrialized countries, a virtually unattainable goal, particularly at times of economic crisis, since the industrialized countries can be expected to introduce protectionist measures to shield their light industry. What remains, therefore, is an alliance between transnational corporations and the business circles in the developing country, an alliance which merely leads to a new international division of labour.

If the developing country makes the transition to the manufacture of durable consumer goods, such as cars, domestic electrical appliances, and the like, it soon begins to suffer very severely from its technologically dependent status. Before very long the capacity of the machinery acquired in the interests of technical progress, and therefore the "optimum size of the enterprise", begin to outgrow the limits of the domestic market. But how is the country to export when the world market is dominated by the major producers in the industrialized nations, against which any competition is unthinkable? And from where is it to obtain the enormous sums of money necessary to construct these plants?

Aid in the form of foreign loans is indispensable unless the transnational companies decide to invest on their own. But indebtedness means increased dependence on international financing institutions, while foreign investment means acquiescence in the fact that the decision making authority will lie outside the country itself, namely in the executive suites of the multinational corporations in the developed countries.

In summary then, it would be correct to argue that the transfer of technological progress to developing countries inhibits rather than encourages development.

As negative examples of these industrialization strategies mention might be made of the so-called "newly industrializing countries". Take for example, Brazil, for a long time a country whose catastrophic political and social situation was concealed by noisy propaganda about an "economic miracle". Since 1977, the gap between the rich and poor in this country has been widening perceptibly. During the period from 1973 to 1980, the population of Sao Paulo grew by 33%, while the slums in that city expanded by 548%. In 1980, one out of every three residents of the Federal State of Rio de Janeiro was a slum-dweller, whereas in 1950 the figure was only one out of ever fourteen (BASE, 1982). In 1976, a parliamentary commission estimated the number of abandoned children in Brazil at 13 million. For its part, the archdiocese of Sao Paulo put the figure at 25 million, i.e., 40% of the population below 18 years of age. In 1978, the strata of society with the highest incomes earned 225 times more than those with the lowest incomes, whereas in 1970 this ratio was still "only" 1:178. 12% of the population have no monetary income. As the Austrian economist Kunibert Raffer has said, accurately describing this process of dependence brought about by imitative industrialization, "The whole structure of production and consumption satisfies not the basic needs of the population, but the whims of the wealthy and the export desires of the metropolitan nations".

The purpose of these comments is not to suggest an explanation for the dramatic situation of the developing countries based on any single cause, but rather to caution against a monocausal technological fetishism based on the implied equation: development = industrialization = technological innovation. Such an equation is simply an epistomological blunder, the effect of which is to lead the developing countries - and not only those countries - to catastrophe.

In addition, we regard a critical feedback as more than necessary in the discussion and analysis of past and future industrialization strategies.

Endogenous industrialization

The only type of industrialization that would appear to be suitable for the developing countries is the type that UNIDO has defined as "endogenous" (UNIDO, op. cit: 78). Such a development model may be conceived exclusively within the framework of a self-centred development process and is aimed at satisfying the needs and enhancing the possibilities of the majority of the population.

A self-centred development process should:

- integrate the majority of the population in the economy in a productive way;
- feed the entire population with locally produced agricultural products, a corollary of which is that agro-industry is of primary importance;
- develop means of production and technologies adapted to local requirements and possibilities;
- curb and reverse the process of internal disintegration which is known under the concept of "structural heterogeneity" and which serves as the background for the increasing militarization of the developing countries; and
- proceed to the construction and expansion of infrastructural assets as a basic condition for endogenous industrialization; infrastructure alone can make possible the indispensable "collective consumption" through communications systems, educational and training centres, a socialized system of health care, etc,

Given that this type of development, a development unlike the development of underdevelopment, will be difficult to implement within the framework of the present international economic order, many Third World representatives are calling for the establishment of a new world economic order. It must be made clear, however, that a new world economic order is certainly no guarantee that the potential greater influx of wealth and resources to the developing countries will automatically benefit the impoverished and wretched masses. The struggle for a new international economic order may also turn out to be a "struggle over distribution among the rich and privileged" (Kunibert Raffer: 1982, 2 165).

The position of Austria

The paradoxical situation that, on the one hand, there are idle production capacities in the industrialized nations and, on the other, basic existential needs cannot be met in the developing countries makes far-reaching, radical and multilateral action imperative. As everyone knows, Mr. Bruno Kreisky, the Federal Chancellor of Austria, has for many years been proposing a kind of "Marshall Plan" for the Third World. In recent times, the idea of a massive transfer of resources has taken on fresh vigour in the face of the alarming world economic recession. The implementation of a plan of this kind would not only contribute to the development of the Third World, but would also benefit the industrialized countries by helping them to overcome the recession. Apart from the economic objectives of such an initiative, one should also not lose sight of the political goals - namely, the prevention of armed conflicts and the turning around of the increasingly scandalous militarization of the developing countries.

The industrialized countries should form a common fund of budgetary and/or financial market resources. The initial capital could be increased annually over a predetermined period. Under this arrangement, the developing countries would be given drawing rights, that is, they would decide from what country they wished to receive goods. Orders would be paid for out of the fund's money, made available either as grants or as long-term "soft" loans. The developing countries would then sell these goods on their internal markets, using the proceeds to establish a revolving counterpart fund in national currency. This last fund would pay for the further development of infrastructure and for the financing of endogenous, self-centred industrial development.

UNIDO could administer the fund as a special programme.

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SOME TRADE ISSUES FOR CONSIDERATION IN THE FORMULATION OF STRATEGIES AND POLICIES FOR INDUSTRIAL DEVELOPMENT IN THE DEVELOPING COUNTRIES DURING THE 1980s AND 1990s

by the UNCTAD Secretariat

INTRODUCTION

The purpose of this brief note is to highlight some of the important trade related issues pertinent to the formulation of industrial development strategies and policies in developing countries. International trade plays an increasingly important role in economic development and particularly in the industrialization process. The formulation of effective industrialization policies requires that such policies fully integrate complementary measures related to the promotion of requisite trade flows for capital formation, infrastructure, input requirements and exports of finished products. The scope of the trade policy requirements in developing countries in the face of the extensive nature of the industrialization efforts required has to be comprehensive, and at the same time strike a complementary balance between national and regional goals and the realities of the international trading environment.

In view of the present depressed situation in the world economy, and in particular the trends in trade in manufactures, trade and industrial policy formulation for the 1980s and 1990s by individual developing countries should contain the necessary pragmatism required for adaptation to the dynamics of world trade. In this connection, both trade and industrial development strategies and policies should be formulated against the background of the changing character of the international trading system which, through various feed-back mechanisms, can ultimately affect the development process and consequently industrial development as well.

Trade issues related to industrial development strategy and policy formulation

Over the course of the 1970s and early 1980s certain important developments have occurred in the structure and patterns of international trade of the developing countries. Consequently, the formulation of industrial strategies and policies should take them into account in order to harness their positive features and minimize their negative aspects. Some of these trade issues which will affect the developing countries' trade and industrialization patterns are briefly presented in the following paragraphs.

Intra-industry trade

The importance of intra-industry trade had been documented in many studies. The main conclusion of these studies was that for both developed and developing countries, intra-industry trade was growing faster than total trade. For developed and developing countries which participated in trade groupings, intra-industry trade was growing faster within the groupings than with trading partners outside the groupings. Among manufactures, intra-industry trade appeared to be growing most strongly in the quantitatively important engineering industries. While it was true that the level of intra-industry trade was greater among industrialized countries, it is now clear that such trade was not merely a feature of the trade of such countries, but that it was becoming an important feature of North-South trade and of trade among developing countries themselves. While there are some reservations concerning the extent of current levels of retained value from the growth in such trade and the distribution of benefits, the effects of expanded intra-industry trade are generally found to be beneficial for both developed and developing countries. In respect of North-South trade, evidence shows that as developing countries become more industrialized, their trade with the developed countries is likely to be based on intra-industry specialization, with production and trade being rationalized at the process level, and that whole industries are unlikely to be redeployed to the newly industrializing countries. The tendency towards greater intra-industry specialization on a North-South basis is also likely to be associated with lower adjustment costs in the North than had been anticipated on the basis of traditional explanations of trade.

While at present it appears that trade between developed and developing countries is more of an inter-sectoral nature than is the case between developed countries, this situation is changing rapidly, reflecting the progressive industrialization of many developing countries. Particularly in the case of those developing countries which have successfully adopted export-oriented industrialization strategies, there is an increasing amount of intra-industry trade between them and developed countries in manufactured and semi-manufactured products. At present such trade is complementary or vertical, i.e. the exchange of products of adjacent stages of production, but its quantitative significance, its rapid growth, the range of traded products and its potential to be influenced by policy action suggest that it could be an important means of expanding and diversifying exports of manufactures from developing countries in a manner which creates fewer structural pressures on the industries of the developed countries. It may provide new opportunities for expanded trade in complementary products of the same industries. Such an approach could be used to promote export-oriented industrialization by more developing countries especially the lesser developed ones where the relatively low labour costs should provide a basis for initial specialization in complementary labour-intensive processes.

Trade-related industrial collaboration arrangements

While the internationalization of production, as reflected in the increased intra-industry trade particularly of the vertical or complementary type, provides the vehicle by which complementary production and trade takes place, attention should also be directed at the instruments and modalities through which such trade is conducted in the form of trade-related industrial collaboration arrangements.

Collaboration arrangements at the enterprise-to-enterprise level are increasingly playing a significant role in trade and industrial, as well as financial, relations between developed and developing countries. The various forms which industrial collaboration could take are such that they could link together countries belonging to different regions, through intricate networks of contractual, equity and financial arrangements, involving both North-South and South-South cooperation, and are likely to gain in importance in the coming years. The importance of inter-firm arrangements is reflected in the growing attention given to them in recent studies by various international organizations. Although these arrangements were often designated "new forms of investment" and differed from the traditional type of direct foreign investment, characterized by the inseparability of control from ownership, the question arose whether, in the final analysis, flexible contractual forms of inter-firm arrangements did not offer to the developed countries' enterprises the same advantages as direct foreign investment, without involving the same risks. In so far as developing countries are concerned, there is no general answer to the question whether these arrangements were superior to direct investment. Under certain conditions, they could make a genuine contribution to the development objectives of these countries, but they could also become a source of economic dependence.

In addition to the consideration of the appropriate industrial collaboration arrangements in formulating industrial strategies and policies for developing countries, attention should also be paid to trade-related arrangements as well as in order to maximize the contribution which trade under such arrangements can make to the overall industrialization efforts. In the light of the recent experiences of many developing countries, such industrial strategies should also take into consideration overall investment problems and debt servicing capacity.

Trade between developing countries

The developing countries as a group constitute one of the most important and dynamic markets in world trade in manufactures. In 1980, developing country exports of manufactures to other developing countries almost equaled their exports to the United States (valued at $ 40 billion). Intra-developing country exports of manufactures grew rapidly between 1970 and 1980. Between 1970 and 1980 this increase approached 28%. In value terms trade in manufactures among developing countries rose from $ 28.9 billion in 1979 to $ 38.6 billion in 1980, or at a growth two-and-a-half times as fast as the 13% growth of their exports of manufactures to developed market-economy countries between 1979 and 1980. Hence, trade in manufactures among developing countries accounted for 38% of their exports of manufactures to the world in 1980 - an increase of 3% points from the preceding year.

Considering the higher economic growth rates and birth rates of developing countries projected for the future relative to those of the developed countries there will be increased competition to service the former countries' increasing demand for manufactures by developed and developing countries alike. In view of the past and present dynamism of developing country markets and the likelihood of a continuation of relative trends in the future, it would appear that the formulation of industrial strategies and policies would assign a high priority to increasing trade, between developing countries, including in the regional and sub-regional context, where complementarities in production and trade are likely to be more prevalent. In this context attention should be directed at exploiting existing arrangements which may already exist as well as the promotion and support of new arrangements to facilitate industrialization and trade efforts.

The concept of 'retained value'

The UNCTAD Secretariat has recently undertaken a preliminary study of retained value of trade in manufactures as an alternative indicator of export performance and for evaluating the trade policies of developing countries. Given the close linkage between production and trade, the relevance of this potential tool for evaluating trade policies could also have important implications in the formulation of industrial strategies and policies as well.

The study pointed out that export performance could be measured in a number of ways and drew a distinction between the gross value of exports which included the value of intermediate inputs, both imported and domestically produced, and value added. Since the gross value of exports could well rise much faster than their value added content, it was desirable to assess also the net contribution of exports to the economy or to a particular industry.

Retained value was defined in the study as that part of value added in production or exports which accrued to domestic factors of production. The study found that the ratio of retained value to value added varied from country to country and from industry to industry, largely owing to the differences in natural resource endowments of individual countries and different degrees of foreign pariticipation in domestic economic activities. It also varied greatly from branch to branch within the manufacturing industry. Since the retained value of exports of manufactures could differ widely from the gross value of exports, the contribution of a particular branch to total exports of manufactures might be quite different when expressed in terms of retained value rather than of gross value of exports.

The study noted that foreign participation in economic activities could affect retained value, whatever the stage of development reached. However, the scope for attaining high levels of retained value in the export of manufactures and semi-manufactures, and hence for retaining foreign exchange earnings from such exports, was positively related to the level of diversification of the industrial base, in terms both of its depth and breadth, and to the availability of indigenous resources.

The experience of several developing countries would seem to suggest that a strategy of industrial development based on exports need not depend solely on maximizing value-added to indigenous raw materials nor simply on minimizing the import content of exports. There are opportunities for the further processing of imported raw materials as well as for exploiting and processing domestic natural resources.

Structural adjustment, protection and reform of the international trading system

The formulation of strategies and policies for industrial development in developing countries should also take into consideration the linkages between structural adjustment, protectionism and the reform of the international trading system. UNCTAD has a continuous programme concerning these interdependent subjects. Some relevant observations which may be of use to the Expert Group Meeting are briefly outlined below in order to provide background material for consideration in formulating the issues to be considered at UNIDO IV.

On an annual basis governments review in UNCTAD changing patterns of production and trade with a view to observing the nature of structural change in the member countries. There is a committment on the part of governments to facilitate the process of structural adjustment in line with change in comparative advantage.

Should an activity in any country lose its international competitiveness, there are, by definition two possible courses of action. The activity may regain international competitiveness or may be phased out without the intervention of government. Alternatively, the government may intervene where the activity, although uncompetitive, may be maintained through some sort of assistance. While the first course of action may involve structural change in line with market forces, the second provides the link between the implications of a lack of structural adjustment and the resort to protectionist measures.

For developing countries, the pace at which the major developed market economy countries phase out their uncompetitive industries is of crucial importance. Recent experience has shown that comparative advantage had changed more rapidly than a number of major developed countries can, or are willing to structurally adjust. As is well known, the situations where developed countries face the major adjustment problems is precisely in those areas where a number of developing countries have become internationally competitive.

In this process where international competitiveness changes more rapidly than importing countries adjust their structure of production, there are two crucial concerns for the role of trade in the process of development. First, there is a certain inbuilt disadvantage that works against the trading interests of developing countries because of the nature of the products which they export. A manifestation of this is, of course, the Multi-fibre Arrangement which, as a derogation from GATT principles and procedures, provides a framework for the restraint of developing countries' exports of textiles and clothing.

The second concern, however, is that not only are developing countries disadvantaged because of the nature of the products in which they have a comparative advantage, they fare poorly in the "arrangements" that are, one way or another, drawn up in response to the situation. In the Multi-fibre Arrangement, not only are the products subject to restraint, certain countries, that is the developing countries themselves, are the only signatories subject to restraint. This situation prevails even though it is well known that other countries have export growth rates that far surpass those of many of the developing countries, and that developing countries may not be the source of "market disruption". Such disruption is the phenomenon which the Arrangement was designed to avoid, and the justification for the imposition of restraints on "low-cost suppliers", who by definition are developing countries.

Thus, it is for reasons such as this that many countries, particularly developing countries and other smaller countries, are questioning whether the functioning of the world trading system is conducive to trade being a means to promote economic development.

The trading system is most certainly not open and liberal; it is becoming increasingly regulated in an ad hoc manner that serves the interests of very few. The motivations behind the current trade regulations are frequently mixed and not always clear, and little consideration is given to the economic impact domestically or on the aspirations of trading partners. Of particular concern, in this respect, is the increasingly discriminatory and non-transparent manner in which trade is regulated. We now see a greater degree of 'made to measure' protection tailored to the needs of "special cases" such as textiles and clothing, footwear, steel, automotive products, and agricultural products. Such exceptions now constitute the bulk of international trade; if the Multi-fibre Arrangement heralds the managed trade arrangements of the future, then the member countries of UNCTAD should sincerely rethink a number of factors bearing on the international trading system.

Thus, in short, governments have considered it appropriate to review in UNCTAD the problems that relate to the process of structural change and to explore the link between that process and the growing incidence of protection coupled with this; they have for the reasons noted above found it necessary to review at the same time the evolution of the rules that govern the functioning of the world trading system.

In this process, it has been noted that trade is being regulated in an increasingly non-transparent fashion. As governments fail to adhere to the appropriate rules and procedures there is a lack of discipline and objectivity in the regulation of trade. To monitor this process, the governments have requested that the Secretariat record the incidence of non-tariff measures facing products of export interest to developing countries. An inventory of non-tariff measures has been completed and over 21,000 official governmental measures have been identified. This inventory is updated and added to on a continuing basis.

THE ROLE OF THIRD WORLD MULTINATIONALS AND SMALL AND MEDIUM-SIZED COMPANIES IN THE INDUSTRIALIZATION STRATEGIES OF DEVELOPING COUNTRIES by Eduardo White*

INTRODUCTION

The process of industrialization of developing countries has been historically dependent on relations with developed countries through trade and investment flows. Such dependency was in general concentrated on a few industrialized countries which for a long time divided among themselves the main spheres of influence in the Third World. During the 1970s, however, there were several indicators that developing countries were gaining more autonomy in their external economic relations, through a wider diversification of trade and investment flows. In terms of trade, such trends were manifest in the increasing number of export markets and countries supplying imports, and more significantly, in the dynamic rate of growth of trade relations between developing countries themselves.

In terms of investments, developing countries started to enjoy an increased availability of supplies of capital and technology through the entrance of enterprises of a larger number of resource countries, the proliferation of new forms of investment and the emergence of new actors with certain special characteristics. Among such entities, particular interest was arised by the so-called "Third World multinationals", (MNCs) or firms of other developing countries that invest and transfer technology abroad, and the small and medium-sized companies of industrialized countries (SMFs) that set up projects in developing countries.

Despite their different origins, MNCs and SMFs appear to share some crucial common denominators which sharply contrast with the patterns of Transnational Corporations (TNCs): basically, they neither operate in oligopolistic markets nor enjoy dominant positions at the international level; and they do not exercise global control and strategic planning over a network of affiliates in several countries. For these reasons, the main interest on the new entrants has arisen in the context of the search by developing countries for wider and better alternatives than those traditionally offered by big TNCs for the acquisition of productive

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Unless otherwise mentioned, the data in this paper are based on the following papers of the author: White and Feldman, White(a), White 1983.

* Professor, Centro de Estudios Juridico-Economicos, Buenos Aires.

resources needed for economic development.

In principle, MNCs and SMFs are likely: to offer more advantages and lower costs, than TNCs; to serve to channel the importation of "appropriate" or adapted technology, in better terms and conditions; to facilitate the participation of local firms and investors of recipient countries; to impose less restrictions on the transfer of technology; and because of their lack of oligopolistic powers and resources, to facilitate the building up and exercise of stronger bargaining capacities in developing countries. Such are the advantages viewed - but, so far, not definitely corroborated - in the increased participation of these new actors.

The present international economic crisis seems to offer some positive ground for the development of new forms of investment in developing countries. Among other factors, protectionism and recession in the industrialized countries are creating a stronger rationale for South-South cooperation and joint ventures, as well as for stimulating the expansion abroad of smaller companies under heavy pressure in their increasingly tight markets in the industrialized countries. At the same time, the aggravation of the crisis, particularly in the financial area, and its repercussions in the economic policies of both developed and developing countries, could have negative effects in the future development of such phenomena.

Before discussing some characteristics of the recent trends and experiences of MNCs and SMFs in developing countries, the next section quickly looks at some figures about their existence and scope.

Developing country firms

An estimate of the United Nations Center on Transnational Corporations, based on data available for 30 countries, shows that the flow of foreign direct investment (FDI) originating in developing countries grew from an average annual amount of \$32 million in 1970-72 to \$508 million in 1976-78 (UNCTC, 41). The tendency of such investments is to originate in developing countries with semi-industrialized economies or large foreign exchange surpluses - the leading countries being Argentina, Brazil, Colombia, Venezuela and Mexico in Latin America; Hong Kong, Singapore, India, Philippines, Malaysia, Taiwan Provence, and the Republic of Korea in Asia; and oil-exporting

Arab nations such as Kuwait, Saudi Arabia, and Iraq - and to locate in other developing countries, particularly the neighboring economies at a lower or similar level of development. The intra-regional tendency of FDI is particularly strong in Asia, where developing countries of the region accounted for 14% of the combined total investment in ten host nations during the 1970s. This includes cases as Malaysia and Sri Lanka, where more than one-third of FDI had a regional origin. The comparable figure for Latin America was 6%; but for certain host countries, such as Colombia and Peru, intra-regional investments accounted for 14% to 19% of the total (Ibid, 73).

The number of firms of developing countries engaged in FDI operations seems to be increasing. In Latin America by the late 1970s there were around 400 parent companies registered as foreign investors of regional origin (excluding Panama and other "tax havens" used by TNCs). Argentina featured with 60 and Colombia with 30 parent companies with projects throughout the region (White, 1983). In Asia, 666 foreign manufacturing projects originated from other countries of the region were identified. For South-East Asia alone there were 494 projects (Wells, 1980). Indian companies had nearly 200 projects in operation or under implementation in other Asian countries, approved by the Indian Government by 1980 (Lall, 1982). As of June 1979, the total number of overseas FDI projects of firms from the Republic of Korea had reached 314 (JO 1981, 54).

MNCs are also active in the transfer of technology to other DCs - through non-equity forms, such as turnkey jobs, exports of complete plants, technical assistance and licensing agreements. For example, a recent analysis of technology exports from Brazil identified 176 operations, most of them located in other developing countries (Sercovich 1981); and firms from the Republic of Korea had been awarded contracts for more than $400 million in mid-1978 (Rhee and Westhpal 1978). In 1978-1979, 36 consulting firms in India sold their services abroad earning $45 million (Lall 1982).

SMFs

Evidence about the actual participation of SMFs from industrialized countries in developing countries is still less solid than for MNCs.

Coming from the same countries of origin than TNCs, they are not disaggregated in the statistics and registers of foreign investment and technology transfer. However, recent studies in some Latin American countries showed that their presence is not negligible (White and Feldman). After a careful analysis of the government registers, which permitted the classification of the sizes of the parent companies and foreign licensors in several European countries, a study revealed that the numbers of firms with less than 500 employees in the home countries, involved in direct investment and technology transfer in Latin America, was very significant. It ranged from 28.3% in Brazil and 18.5% in Mexico to 14% in Peru and Venezuela (see Table 1). In terms of the volumes invested, however, the weight of SMFs was significantly lower, ranging from 1% to 2% of the total investment of the respective country of origin. But the table shows that in the field of technology transfer through licensing agreements the performance of smaller firms is also remarkable.

Characteristics of the new entrants

Both MNCs and SMFs can be characterized as small by international standards. Yet MNCs are usually medium-to-big firms in their domestic markets, and the same would happen to many of the SMFs viewed from the host country perspective[1/].

Most MNCs investing abroad in the manufacturing sector are leaders in their home markets, operate in moderately concentrated sectors, and have a long period of previous experience at home, which includes export activities. Also many engineering and consultancy firms have recently started to expand and operate in other countries as a result of the huge investment programmes undertaken by some developing countries'governments for the development of the physical infrastructure. Also state enterprises of countries such as Brazil, India and the Republic of Korea, have become significant exporters of turnkey deals, engineering and consultancy services, and construction projects. Yet in terms of the number of overseas ventures, privately-owned exterprises clearly predominate over state companies.

1/ A company of up to 500 employees in its home country fits into the category of SMF in many industrialized countries but it would be probably big in the smaller markets of most DCs.

TABLE 1

SMALL AND MEDIUM-SIZED ENTERPRISES OF EUROPEAN COUNTRIES (*) WITH EQUITY PARTICIPATIONS AND LICENCING AGREEMENTS IN BRAZIL, MEXICO, PERU AND VENEZUELA.

Percentage number of independent** SMEs with up to 500 and 1000 employees in the home country, in respect of total European firms, classified by form of technology transfer and recipient country.

Recipient countries / FIRMS	BRAZIL		MEXICO		PERU		VENEZUELA	
	< 500	< 1000	< 500	< 1000	< 500	< 1000	< 500	< 1000
Equity Participation (Subsidiaries and joint ventures)	28.3	41.8	18.5	33.5	13.9	27.8	14.0	23.3
Licensing	30.0	37.8	20.3	26.9	29.2	35.4	13.5	27.0

* Federal Republic of Germany, France, U.K., Netherlands, Italy, Sweeden, Switzerland.

** Not listed as subsidiaries or holdings of other companies in the repertories utilized for detecting size.

SOURCE: White **and Feldman**, The Role of Small and Medium-sized Enterprises in the International Transfer of Technology: Issues for Research. TD/B/C64, Tables 2 and 3.

The involvement of subsidiaries of TNCs in clearly marginal in most capital and technology exporting countries, although the technology exported is usually originally imported from developed countries. There are also several cases of arrangements in which TNCs act as "technical partners" in trilateral joint ventures among developing countries.

Most SMFs with investments and transfers of technology to developing countries are companies in the range of 100-500 employees at their home headquarters. They are in general family-owned and managed, but quite a few of them are run by sophisticated university graduates. Although by definition they are not leaders in the sectors in which they operate, many of them occupy a prominent position in their particular submarkets or sectoral niches. They also tend to be highly specialized, typically in one or two product lines, which they are able to manufacture in many short series, adapted to the specifications and needs of certain "contractual markets" given by other industries. A good share of them undertake their own research and development. Most of the SMFs operating in developing countries have international antecedents in other regions, particularly through exports and productive activities.

Sectoral diversification

The spectrum covered by MNCs and SMF is wide. Contrary to some views of this phenomenon as substantially confined to sectors or branches neglected or abandoned by TNCs, it includes a diversified range of industrial activities.

Manufacturing and other industrial activities (such as civil construction) concentrate the largest share of direct investment and technology transfer among developing countries. Traditional, mature sectors using low scale and labour intensive technologies - such as textile and garments, food products, light engineering, plastics, etc., where domestic enterprises of the more advanced developing countries have years of experience to offer to the less developed ones - predominate as the object of direct investment. Yet there are also cases of projects in high technology sectors such as machine tools, transport equipment, pharmaceuticals, and capital intensive intermediate products such as paper and pulp, steel and petrochemicals. As above mentioned, developing countries' firms are also present in the supply to other developing countries of public works (highways, hospitals) and industrial plants.

On the other hand, the overseas activities of small and medium firms of industrialized countries correspond in general to the pattern of sectoral diversification in the home economies, where they participate significantly in certain branches such as metal-working and capital goods, textile and clothing, food, furniture, ceramic products, non-metallic products. Thus in principle their productive profile appears similar to that of the MNCs. Yet the international expansion of SMFs is clearly more concentrated on innovative companies of highly specialized, relatively sophisticated branches, such as capital goods and precision industries.

Geographical scope

As above mentioned, the geographical diversification of investment and technology flows among developing countries tends to follow a regional pattern. This trend is particularly true in the case of producers of final or intermediate goods, which typically follow previous trade flows, which in general are regionally concentrated (more in Latin America than in Asia). Yet a more global orientation can be observed in the case of non equity ventures such as turnkey deals, and engineering services. For example, India and the Republic of Korea are offering more industrial projects of that kind to the Middle East than to their own regions, and Brazilian construction companies have been recently awarded the largest works in Arab and African countries.

The SMFs geographical orientation is not very different. They show a tendency to seek out the markets that most closely resemble the home economies for which they first developed their products. In fact, most of the flows go to other developed countries, and the expansion to developing countries is clearly concentrated in the more advanced economies of the Third World. Thus, although the tendency of SMFs to move to developing countries is increasing - for example, according to a recent survey in the FRG, companies with less than 500 employees accounted for 56% of the firms with investment plans in developing countries (White and Feldman) - the main target is the group of the largest, fast-growing and semi-industrialized areas, such as the big countries of Latin America.

This outlook suggests that the least developing countries are certainly not the main beneficiaries of the expansion abroad of MNCs and

SMF. The phenomenon has its focus on the high and middle income group of developing countries, although a few low and lower middle countries could partially benefit from the geographical proximity to more advanced developing countries.

Factors behind the emergence and spread of DCF and SMF ventures in developing countries

The international projection of DCFs and SMFs and their expanded role in developing countries can be explained by a set of common factors complemented by reasons more specific to each kind of actor.

Certainly the phenomenon of increasing diffusion of specialized information throughout the world and the expansion of world trade during the last two decades, the access to financial markets during the 1970s, and the increased availability of services and organizations of great importance for international investment operations, such as trading companies, banks and insurance companies, engineering firms, etc., have created a stimulating environment for the international projection of more and more firms.

Developing countries, particularly the more advanced ones, achieved by the 1970s a relatively strong growth performance in the manufacturing industry, both in terms of production and exports. Foreign investment grew in these countries as a whole at a higher rate than in developed countries. At the same time, new forms of investment emerged, partly as a result of legal demands of many host developing countries which promoted the use of non-equity control schemes such as joint ventures and licensing agreements or, in other words, unpackaged forms of investment which innovated with respect to the traditional forms of TNC investment, and at the same time were more adapted to the capacities of smaller, non-TNC firms.

Of course the internationalization of MNCs and SMFs is not only a reflection of changes in the international environment but also a sign of a process of modernization of smaller companies of industrialized countries and domestic companies in the Third World. Regarding the first, there is no doubt that despite worldwide concentration pressures, they continue accounting for a large share - up to about 70% - of total employment in industrialized countries. Moreover, they have contributed with important technological contributions in sectors such as machinery, electronics, scientific instruments, where they have proved to be more efficient than large companies (Freeman 1974).

In recent times, they have also increased their share in the exports of some industrialized countries such as Japan, France and Italy. In the European Community, for example, industrial integration led to a significant specialization of many specialized producers of capital goods and non-standardized goods of small size, which supply producers of final goods across national frontiers. For such firms, once a certain level of expansion has been reached, the possibilities for continued growth and preservation of their positions are more and more linked to the conquest of external markets.

In the case of domestic firms of the more advanced developing countries, a similar process of maturing and consolidation has been taking place over the years in their domestic markets. The high rates of growth in these countries during the last decades - some, as the Latin Americans, with fairly old antecedents of industrialization, and others, as the South-East Asians, after a much more recent and faster development process - gave rise to a diversified production base, coupled with an increasingly experienced entrepreneurial sector. Despite the strong presence of foreign investment from industrialized countries in most such countries, domestic firms took an active part in the industrialization process occupying significant positions in certain branches, particularly of traditional industries.

In India and the most advanced Latin American countries the policies of import substitution under high protectionist barriers and the expanding role of the State in the development of heavy industries and infrastructure works stimulated the emergence of domestic firms in a number of sectors. Early educational programmes in countries such as Argentina and India provided the basis for the availability of skilled human resources for the industry; and the exposure and experimentation with foreign technology during long periods of open door policies for TNCs was an important factor for building up local capacities.

Paradoxically, these capacities were further promoted, at a second stage - and particularly during the 1970s - by the introduction of government controls on the imports of technology which tended to protect local developments. In the more recently industrializing countries of South-East Asia, the strategies of industrialization combined a strong outward-looking approach with a significant reliance on the role of domestic firms in the development process. Finally, the emergence of capital-surplus Third World countries after the dramatic oil price rises of 1973-74 added a new source of South-South industrial cooperation leading to a number of joint ventures.

The impressive export performance of the manufacturing sector that took place in the last two decades in developing countries - and particularly those in South-East Asia - has been pointed out as a key factor leading to foreign production (Wells 1980). A large share of such exports went to other developing countries - predominantly on a regional basis - and was undertaken by domestic firms. The limited size of the home-economies was an important stimulus for firms venturing abroad, particularly for those large companies that had achieved a significant share of the domestic market and looked for alternative ways of continuous growth and diversification.

At this stage, the explanation of expansion through foreign investment rather than through exports makes use of the famous product-cycle theory, in a modified version. In effect, after a certain period the smaller developing countries to which exports go start their own process of import substitution and adopt protective measures that threaten exports, so that, as a response to the potential loss of such markets, firms of the more advanced developing countries may decide to make a direct investment.

The move towards developing countries seems to have a different rationale in the case of SMFs. The study of their experience in Latin America showed that few of them were exporting to the countries of the region where they located subsidiaries or joint ventures before such decision was taken. It appears that aggressive rather than defensive motivations predominate in the internationalization of SMF, the strongest determinant being the desire to penetrate or to develop new markets. Expansive strategies may be closely related to the products of some of these firms, which are by nature international (such as surgical and medical instruments). The "drag effect" of transnational corporations - which as major industrial customers of small firms at home are followed by these in their overseas ventures - is also important.

Domestic and international recession has played an important role in the expansion abroad of both SMFs and MNCs. Many small firms of industrialized countries have gone abroad because their local and export markets had reached saturation point or because of the slowdown or other problems in the economic conditions at home. For smaller producers of capital goods, for example, the shortage of work at home and the pressures of international competition may have been important motives for geographical diversification. In the case of smaller firms in structurally weak sectors (for example, textile and clothing), the challenge came also from imports from a number of developing countries having competitive advantages deriving from their significantly lower labour costs.

The same factor seems to have played a role in developing countries. For example, India and other Asian and Latin American countries, started in recent years to suffer severe slowdowns in the rate of economic activity, affecting various industrial sectors which had been growing together with local demand. Thus many civil construction and engineering firms which were participating in huge public investment programmes found themselves suddenly with a significant overcapacity that led them to compete in other developing countries for large contracts.

The problem of higher labour costs seems to be an important factor particularly in the case of SMF operating in labour-intensive sectors in developed countries. The drive for greater cost efficiency through the use of cheap and abundant labour in developing countries is in that sense a strong motivation in such firms when they are planning a certain international specialization, but is less important so far in South-South investments where labour differentials are less critical.

Risk diversification is also strongly present among the determinants of both MNCs and SMFs. The strategic consideration is not only to compensate for recession of home with profits in other countries. Political instability and insecurity of private property is typical in developing countries, but many smaller companies of the Northern hemisphere have started to be motivated by similar considerations, including the risk of international conflicts.

Another element is the desire to escape or circumvent strong government controls and regulations in the areas of foreign exchange and taxes. This has always been behind overseas ventrues of MNCs; but more recently, SMFs of industrialized countries showed sensitivity regarding similar interventionist policies in their home countries, such as environmental protection and labour regulations, which may have a stronger impact on them than on bigger firms.

The objective to capitalize on technological advantages is an important determinant in a number of cases of SME overseas investments, and to a lesser extent in the case of MNCs. Many SMEs have in fast developed highly innovative manufacturing techniques, and are conscious that such methods put them in a favourable position in other countries. However, owing to the limited resource base of smaller companies, they are not always able to protect their technical superiorities from the pressures of competition on a long-term basis. This may explain a tendency of small and medium-sized enterprises to a quick capitalization of their technological edge through overseas activities. On the other hand, firms of developing countries have occasionally projected abroad on the basis of relatively important developments of their own. But their main technological advantage lies in the adaptation of imported innovations to the local conditions of their domestic markets, which are similar to those of other developing countries.

Finally, both SMFs and MNCs have recently started to receive incentives from their home governments to invest abroad. Thus in the

Federal Republic of Germany, the Netherlands, Japan, financial and tax incentives are available for SMEs that set up activities in developing countries and in this manner contribute to the promotion of exports. A similar policy has been adopted by advanced developing countries such as India and Brazil with regard to domestic companies that sell technology abroad. However, recipient developing countries have not adopted so far special treatment or incentives for foreign SMEs and MNCs. The latter enjoy certain advantages, so far incipient, in the context of regional integration schemes such as the Andean Group and ASEAN.

Advantages of SMEs and MNCs for developing countries.

The spread of SMEs and MNCs seems to offer a number of important advantages from the viewpoint of host developing countries. To begin with, the increase in the degree of competition among potential foreign suppliers of capital and technology may serve to enhance the bargaining strength of host countries and to diversify their external economic relations.

Secondly, to the extent that developing countries prefer joint ventures and other "unpackaged" forms of technology transfer, both SMEs and MNCs seem to be equally adapted to such requirements. Studies on both types of firms have shown that they are more likely to adopt joint ventures structures than wholly owned subsidiaries or other equity-controlled forms[1/]. The reasons are the same in both cases: lack of overseas experience, insufficient financial resources, positive evaluation of the contributions of the local partner, less monopolistic advantages than TNCs (even in cases of high technology SMEs) and therefore lower need for unambiguous control or weaker bargaining capacities to impose controlled arrangements.

Thirdly, the technology offered by MNCs and SMEs tends to be more appropriate to the needs of developing countries, on several dimensions. In the case of MNCs, one aspect of such appropriateness derives in general

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[1/] For evidence on equity and control strategies of SME in developing countries, see White (a). For evidence on MNC in Latin America, see White, 1983; on India, see Lall 1982; on the Republic of Korea, see Jo 1981; see also Lecraw 1981, Wells and Warren, 1979, Ahmad, 1981.

from the adaptation of the technology to local conditions of other developing countries, such as the smaller scale of the market, the abundance of labour, the available raw materials and inputs, the climatic and environmental conditions. Similarily, SMEs tend to transfer more labour intensive (as in the case of capital goods producers), adapted nevertheless to the smaller scale production needs of many developing countries. Another dimension common to both cases seems to lie on the higher flexibility of the technology at an earlier stage than TNCs, either because their weaker market positions encourage them to penetrate new markets ahead of their larger competitors, or because they lack the means for pursuing global strategies in marketing their technological advantages.

Similarly, MNCs have revealed significant capacity for introducing new products and processes originated in industrialized countries, moving ahead of the marketing decisions of TNCs. For example, the weakness of patent protection in Latin America has allowed domestic firms from experienced countries such as Argentina to anticipate the introduction of new drugs in the regional markets. These reasons together with the lack of an integrated transnational production system and their lower overhead costs explain also why SMEs and MNCs are less likely to use restrictive practices in their technology agreements, such as tie-in clauses, export prohibitions and transfer pricing mechanisms.

The transfer flexibility of SMEs and MNCs may have another advantage in terms of the capacity of absorption and learning of the recipient parties. In contrast to TNCs, which tend to limit the transfer to the designs and product technology, smaller firms are often able and willing to transmit software techniques - including experience, management and organizational forms - which are often the real bottleneck in developing countries. Such transfer is made easier by the direct contact with the owners and managers of smaller firms, where the technology and industrial experience is embodied, and very often has been learnt not so many years ago, so that the firms can still understand the problems of late starters. Furthermore, the productivity of labour intensive techniques increases through "learning by doing", and the less automatic equipment being used could be adequate for the production of short-run series of several products, as might be the case in the small markets of developing countries.

Fourthly, whereas TNCs have been criticized for concentrating in relatively high-income consumer durables markets based on sophisticated and advertising-intensive marketing techniques, MNCs and SMEs tend to operate in sectors more closely matched to the industrial development needs of many host countries. These sectors include, on the one hand, traditional lower-income mass consumer goods such as food, textiles, clothing, etc., which could be of particular interest both to less developed countries in relatively early stages of industrialization and to more industrialized developing countries seeking to diversify their industrial structure. On the other hand, they include capital goods and industrial inputs which may correspond to the needs of both larger, more industrialized developing countries with gaps to be filled in their increasingly diversified manufacturing sector, and of less developed countries pursuing the development of their physical infrastructure.

Finally, the entry of MNCs and SMEs in the economies of developing countries could contribute to the creation of more pluralistic and less concentrated markets. In this sense, they may have positive effects on domestic competition. Both types of new entrants have a definite tendency to enter by establishing new companies rather than taking over local concerns. The administration of their overseas ventures is highly decentralized from their parents abroad, and local partners have an important role in the direction of the projects, which are often comparable in size to the parents. Their less sophisticated inputs and labour intensive procedures make them more inclined to source their supplies in the host countries, mobilizing local raw materials. Hence SMFs and MNCs tend to become more integrated in the local economy of host developing countries, and in fact cases of gradual and full "indigenization" are not rare.

Final considerations

Despite all its promising features, the increasing participation of "newcomer" MNCs and SMEs should not be viewed as a panacea. First, their involvement in the industrialization process of developing countries is still an incipient trend. The volume of South-South direct investment and technology transfer by SMEs is a small fraction of total foreign participation in the developing world. Larger firms will continue to dominate the bulk of the process of international resource transfer, as long as there is a strong correlation between such process and the size of firms. Smaller firms lack the financial, managerial and information resources needed to take full advantage of the existing opportunities. The costs and risks involved in international production may prove to be too high for most of them.

Second, there are areas and activities which seem to be out of the scope of their potential contribution to developing countries, particularly the large scale industry, the continuous transfer of sophisticated technological innovations, and the development of massive export programmes.

Third, their competitive advantages depend on the way and extent to which they remain small, less-diversified internationally and not dependent on patented and sophisticated technologies. Yet some of these newcomers are being taken over by TNCs, precisely when they start to show international competitiveness. Others that enter the developing countries' markets as subcontractors of large TNCs may curtail the possibilities of domestic suppliers. Still others grow so fast that they tend to become TNCs and develop similar behaviours. Thus, their participation may not always improve the conditions of developing countries.

In addition, mention was made of the tendency of SMEs to concentrate their projects in the more advanced developing countries, due to their risk sensitivity and need for a similar environment. The least developed countries seem to be excluded by most of the spontaneous international projections of smaller firms. Moreover, for certain small firms the lack of experience and familiarity with developing countries may imply the need to maintain control of their overseas operations through 100% on majority ownership. Such weakness may also create problems in the negotiation of non-equity arrangements and joint ventures. There are also cases in which highly priced and quality products and sophisticated machinery were introduced without consideration for the need to make adaptations to the new environment.

Finally and perhaps more importantly, at this stage of dramatic and worsening conditions in the international economy and particularly in the situation of developing countries, issues such as the role of smaller firms in the South-South and North-South redeployment, may appear as insignificant in comparison to the great financial and trade problems.

Yet one of the main dangers of the present debate about the ways and means to get away from the crisis and revive the industrialization process is to forget and neglect the existence of certain positive long-term trends that were maturing in the years before the last aggravation of the crisis, and run the risk now of being directly or indirectly aborted by future developments and public policy reactions.

In fact, whatever the limits of their present contribution and their lack of short-term impact in the growth rates of the industrial sector, the increased participation of these newcomers in the international production relations of developing countries is certainly a crucial element in the process of building up of self-reliant industrial structures in the Third World, based on the active involvement of national decision centers capable of negotiating and competing with other actors in the international market. The present participation of MNCs and SMEs in the industrialization of developing countries is a clear manifestation of a long-standing process of gradual accumulation of experience and bargaining capacities, and an indicator of the potential offered by this phenomenon if adequately capitalized and promoted by public policies in the coming years. Probably what is at stake are not only the direct benefits of the internationalization of smaller firms, viewed in particular from the standpoint of recipient countries but, more seriously, the future survival of domestic enterprises in developing countries, and of smaller enterprises in developed countries, as long as such survival increasingly depends on the capacity to participate in international activities.

In effect, the internationalization of MNCs and SMEs is to a large extent explained by the patterns of post-war industrialization in developed countries and the more advanced developing countries. Such trends encouraged the emergence and spread of small firms, in the case of the former via specialization and in the case of the latter through learning by doing with imported technologies coupled by protectionist policies. In the last two decades, this process was further encouraged by the growth of world trade, the higher transparency and narrowing of the international system, the increased access to financial markets, the phenomenon of technological diffusion and the emergence of new forms of international investment and transfer of technology.

But in recent years, some of these conditions have suddenly changed. World recession, which up to a certain point played a positive role in stimulating the overseas expansion of SMEs and MNCs, and was supposed to favour some North-South redeployment trends, has given rise instead to a growing protectionism coupled with an increasing concentration, oligopolization and conglomeration of production on a world scale. World trade has become increasingly dominated by barter transactions and complex arrangements that imply the control of very large organizations and South-South trade is decreasing even in regional integration areas. Profound technological changes are at the same time encouraging a greater centralization of economic activities.

The years of easy access to the financial markets are also over, and with them the stimulus for smaller firms and countries to unpackage productive resources. Many developing countries have flexibilized or discontinued policies of foreign investment and technology transfer that led to new forms of international production, adapted as we have seen to the characteristics of MNCs and SMFs and have also revised incentives and subsidies granted to national enterprises. Further, they have started to allow higher concentration levels in their narrowed markets, while opening the doors again to big TNCs, in the hope of getting the much needed financial resources.

To sum up, the current international economic crisis and the present mood of the public policy reactions may seriously affect one of the most promising developments in the industrialization process of developing countries. Thus in the context of the arrangements to be undertaken in order to overcome the most serious problems, governments and international organizations should take care of preserving and stimulating the process of redeployment of Third World firms and smaller enterprises of industrialized countries.

But whatever the expectations on the results to be obtained through global negotiations, developing countries should adopt by themselves all the policies and measures needed to prevent the loss of an asset which has involved decades of patient efforts. Such policies and measures entail the preservation of incentives to domestic enterprises, subsidies to technological development, selectiveness in the foreign investment and technology transfer field, and other actions of state intervention which are not always consistent with the global trends and pressures. Co-ordinated moves by developing countries will be necessary in order to have some success in pursuing such policies. In turn, developed countries should understand that developing countries are presently offering an excellent field for the future survival of their small and medium enterprises, one of the key factors of pluralism and competition in modern capitalist societies. Such an understanding implies the granting of incentives and facilities to the redeployment of SMEs to developing countries, instead of curtailing the existing opportunities by deepening the concentration process and the protectionist policies.

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ON THE CONTROL OF TECHNOLOGY by Peter Wiles*

INTRODUCTION

The theses of this contribution are that:

- **the recognition of technological unemployment (tech.u.) is hindered by the presuppositions of both Keynesian and monetarist economics;**
- **jobs are as important as incomes;**
- **product innovation (the invention of goods and services substantially different from all those at present available) creates little tech.u., while process innovation (the invention of cheaper ways of making existing things)[1] creates a lot;**
- **there may or may not be such unemployment today in advanced capitalist countries (there certainly is in the Third World);**
- **in view of the immensity of the unemployment problem in all market economies it is as well to use technological controls even though technology may not have created the unemployment; and to prevent some new technologies from establishing themselves, in rich and poor countries alike; but**
- **such measures should be confined to the non-traded sectors.**

The present world depression is very deep. Keynesianism is said to have failed - though that is not the opinion expressed in this paper - and monetarism has failed overtly and completely. Indeed it has been the major cause of the slump. Unemployment affects all market economies, including the most advanced. Many young people now entering the labour market will never have a job all their lives, since by the end of the present slump (if any) they will have become unemployable.

That in so great a slump and such a vacuum of policy the imposition of labour-intensive technology on new investment has hardly been mentioned indicates a deep ideological incompatibility between such ideas and "normal" economics. This incompatibility can be traced back to the early nineteenth century, but would perhaps be out of place here.

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* Professor Peter Wiles, Professor of Economics, London School of Economics and Political Science.

[1] A new machine for producing existing things resembles a product innovation while it is being sold, but not in macro-economic terms.

If we skip forward to Keynes (1936), it is clear that he made certain changes in the basic assumptions of economics: homo was not always economicus, wages were sticky, savings could be hoarded, expectations were irrational, investment was due to animal spirits, etc. Therefore Say's law - that supply creates its own demand, i.e. that incomes earned must be spent, and that human wants are so expansible and flexible that there is no danger of earnings being hoarded - was untrue in the short-run. Investment, for whatever reason, was often too small to offset saving (but the technocrats had it, by implication, too big to offset by the labour force, and were in no way concerned with aggregate demand). It is surprising that Keynes, laying so much stress on sticky wages, does not wonder whether new technology puts people out of work; for they will not or cannot price themselves downwards enough (in real terms, of course) to get re-employed somewhere else in an older technology. But the fact is that he does not raise this question, and sets his whole mind to investment's multiplier effect on aggregate demand. The actual number of workplaces created on the first round of the multiplier is no concern of his.

The monetarists can be simply dealt with. They re-establish the position of Say, and make emplicit what he did not: the downward flexibility of wages, if not hindered by unions or high state doles, will always re-establish full employment in the face of technical problems.

None of the views of main-line economists to technological unemployment should be rejected absolutely. But they must be condemned as one-sided and incurious to a remarkable degree. As usual, only development economists and Sovietological, nay also Soviet, conomists have shown breadth of mind and an interest in the possibilities. But main-line economics is about advanced capitalist countries, and here mere technological snobbery, and not by any means only among economists, plays a large part. For the very word "advanced" means not in need of intermediate technology, does it not? And the use of the very latest (most labour saving) thing is the main source of economic price in every single country in the world.

Yet what is intermediate technology but investments of sufficient labour intensity to mop up unemployment in developing countries - perhaps even at the expense of national income growth? What is Soviet full-employment policy but investments carefull located so as to mop up unemployment where it arises? And indeed in an economy of pronounced capital shortage if some plants are super-modern for, say, military reasons, must not the rest be of intermediate technology if enough workplaces are to be created with the capital available? - or if not whole plants then many particular functions within all plants, such as materials handling and dealing?

The notion of the workplace is missing in neo-classical economics. Yet it comports huge transaction costs at its creation, so that enterprise bankruptcy destroys workplaces for a very long time. And once we have moved off the planning stage (from "putty" to "clay") the substitutability of factors is very small indeed, so that the number of workplaces is very insensitive to subsequent moves in the wage/product price ratio. Perhaps only office work and agriculture, with their large number of postponable activities, are exceptions.

Dualism (in development economics) is yet another instance of a concept handled incorrectly. It is constantly implied that it should be abolished as quickly as possible, in order "better to integrate" the economy. But the dualism creates employment, and keeps people happier than in slums. And what is it precisely? - nothing but an all pervading, natural, traditional, powerful resistance to new technology. We should be so lucky as to be able to re-grow a little dualism in Toxteth.[1/]

Another reason for our visceral resistance to the concept of technological unemployment, is that work is supposed to be bad, while only income is good. But in general only the marginal, or at any rate last few, hours of work are bad, or even unpleasant, for the average person, unless the form of the work is itself particularly disagreeable. So

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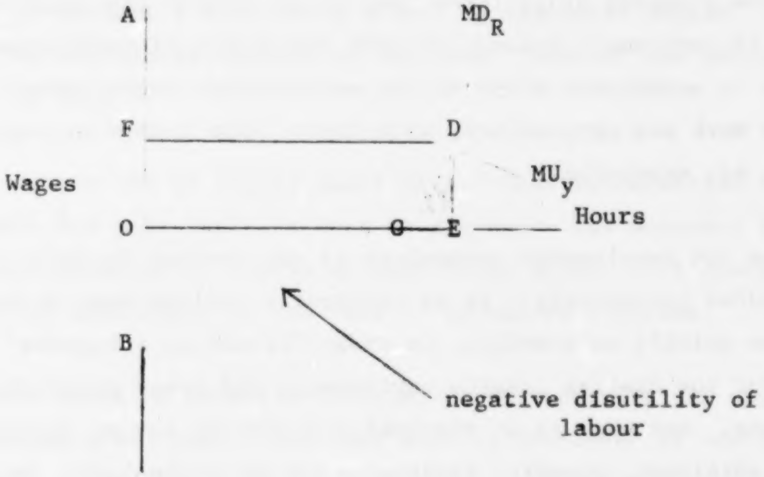
[1/] The section of Liverpool largely inhabited by blacks. Long-term unemployment is exceedingly severe, and rioting and petty crime correspondingly so.

it is better that 95% of the labour force should work and be paid 100 each (total 9500), than that 80% should work and be paid 120 each (total 9600), or even much more - which is the likely result of technical progress. In the following figure it is irrelevant how the level of employment OE was reached, except to know that for some extraneous reason the wage rate is OF: the figure only shows how it feels when we are there. The curve MU_y is not a demand curve for labour, but the marginal utility of income derived by labour from being employed. The "worker's surplus" ABDC includes as well as the usual area AFD indicating the superior utility of intramarginal income, the large area OBC in which work is a good in itself. This sentiment (area) is rather insensitive to the rate of money income received. It expresses one's feeling of worth in the community, sheer technical interest in what one is doing, etc.



It is of course difficult, to put it midly, to know the relative magnitudes of OCB, ADCO, DCE and recorded income OEDF. It is nevertheless true that DCE is much smaller than OCB for most people; that a society in which this is not so is severely threatened; and that long-term and even (among the young) medium-term unemployment tends to move C to the left, accustoming people to cynicism and idleness. In any case, and this is the main point, OBC is destroyed in one individual by unemployment but not greatly increased in another by the upgrading of his work - and these are both likely results of technical progress. What the more fortunate person gets is a higher wage, of course, so that in all probability his "crude money income" OEDF rises.

There is also the distributive aspect of technological unemployment. As an economist, one is taught to think of national income as primary, and its distribution as secondary. But the supporters of intermediate technology are on the whole less interested in the total than in its distribution. They assert, so to speak, that 95 x 100 > 80 x 120; because with most intermediate technologies it is the many unskilled jobs that are preserved, and with most advanced ones it is the few skilled that remain in employment. In the opposite case (e.g. textiles) their argument applies, of course, a fortiori. In all cases, it should be recommended that, under a system of artificial technological controls, all capital-intensive technologies be held back, and all labour-intensive ones be promoted[1] where employment is threatened.

Of course all this only goes to show why economists must be expected to approach the subject of tech.u. with inhibitions that ordinary people do not feel. It proves nothing at all.

Economists have nevertheless made substantial contributions to the study of technology as such, and one of these, largely unrecognized in the technology market, is very important for us: the distinction between process innovation and product innovation.

For its the former that causes tech.u., while the latter tends to mitigate it. Let us first examine this proposition on a world-side scale. If there were no product innovations anymore and there were only the present list of products, and their production rose and rose, then all technical progress would cause tech.u. This is inescapable and obvious. But if there were only the present list of products, and the cost of producing them fell and fell, every consumer would eventually be satisfied, because of the law of diminishing marginal utility. That is to say, each product is subject to this law, so any fixed list of products is also subject to it. So consumer demand would cease to be indefinitely expansible, and all process innovation would cause tech.u. to sit in even sooner than it would in any case.

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[1] I.e. a more advanced technology could conceivably be more intensive, yet save so very much capital that it still lowered costs. To allow for this base possibility, the words "advanced" and "intermediate" are suppressed in the text.

The idea, prevalent but not universally accepted among Marxists, of Full Communism includes by definition a state of zero marginal utility for all goods. This is entirely possible if product innovation ceases while process innovation continues: it is hard to imagine that humanity could not produce for itself in this way enough manufactured products and services to bring about that state of affairs in a century or so. The "indefinite extensibility of human wants", so beloved by economic textbooks, is caused by product innovation.

But simultaneously, tech.u. would rise to great heights - expressed, it is to be hoped, through rationally distributed reductions of working hours. Eventually every improvement would result in exactly matching unemployment.

There is not enough space here to enter into the cases of agriculture and construction (diminishing returns and shortage of space respectively, so heavy dependence on population growth), and transportation (it is difficult to imagine the limits to tourism, or exactly what the "cessation of product innovation" might mean). This contribution concerns after all industrial technologies first and foremost.

Now it is evident that both product and process innovations probably come into any country from abroad. At present most innovations of both kinds come from advanced capitalist countries, and are protected by patents or more simply by the fact of technological leadership[1]. But Brazil and Mexico already export technology and this may become commoner in future.

Now our whole grasp of the distinction is comparatively recent. Yet the market for technology makes no distinction between the two kinds. Moreover, nearly all technology has a foreign origin, and imports are easily controllable, and a poor country cannot afford to buy all the knowledge that there is, so it must and can choose the licences and machines least likely to lead to tech.u. at home, since it suffers quite peculiarly from that. These are clearly the product innovations, ceteris paribus. In the ceteris paribus clause one finds, evidently, short-run profitability in the home and export markets. But while recognizing here the likely foreign origin of most technology, the question of foreign trade in its products is postponed until later.

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[1] The firm that has developed the present innovation is probably in the best position to develop the next one too, so it hardly needs to protect the present one with a patent.

Can it be shown, then, that in recent years, say the last 15 or 20 which takes us back well before Yom Kippur, 1973, there has been inter alia technological unemployment in advanced capitalist countries? For instance:

- consumption is reaching some ceiling of real demand, so that the more productive labour is, the less one wants of it;
- progress is quicker than ever, so that more and more people are put out of work for the same expenditure on R and D and investment. There is, therefore, a succession of ever more unfavourable short-run situations; and
- wage rates are not merely sticky in a downward direction, but stickier than ever; so all substitutions of one thing for another lead to unemployment, including those of one technology or product for another.

As to the first point, it has been shown that continued process innovation would certainly bring in tech.u. in this case. Price elasticity of demand for more of the same product is bound to decline. But after all product innovation (in consumption goods) is an entirely different thing, and it does continue at a great rate. The disillusionment with consumption would, in any case, manifest itself in a higher rate or saving year by year, not simply that high rate that mystifies everyone in a period of inflation. There is no such constant increase in saving rates, so this first point may be dismissed.

As to the second point, factor productivity residuals show no increase in recent years. The micro-chip is of course very spectacular - but so was the railway. Each spectacular advance renders people unemployed in a way that no reduction of real wages, even to below subsistence level, could counter - but it was always so (statistical estimates are, however, lacking here).

This forces one back, then, into the eminently neo-classical third point, which needs no explanation. The assertion of stickiness is clearly true: process innovation is not resisted by lower wages, so it always leads to unemployment, at least on a world scale. But the curing of that unemployment entails new enterprises and products, i.e. very heavy transaction costs and indeed investment costs. In an era of monetarism these are not undertaken. So technology does indeed play its part in our misery, though it need not have done so, and the wound is self-inflicted.

That technical progress has created unemployment in the Third World is surely beyond the least doubt. It has not done so everywhere, nor are the mechanisms qualitatively different from those at work under advanced capitalism. The Indian example is the one best (though not well) known.

India contains as an enclave the largest NIC in the world: the so-called "8 crores" or "organized sector". If this sector were to be entirely self regarding it should perhaps go for the most advanced technology on all fronts and so compete on foreign and domestic markets with advanced countries.

For technical progress cancels comparative advantage. To quote Mr. Bharat Ram:

> "There is then the misplaced concept of comparative advantage. We continue to hang on to the idea supported by Western scholars that our labour enjoys a potential comparative advantage in areas of intermediate or 'appropriate' technology suited to a combination of mediocre skills and low wages. To the extent these skills can be improved the potential advantage will be realized.
>
> Comparative advantage is an illusive concept. Among other things it depends on the nature of technology. As a matter of fact, the greatest productivity strides in industrial nations have come

> out of technological advancement. Some credit to skills notwithstanding this is how Japan and the West are able to outdo the developing countries in spite of their wage rates being higher by orders of magnitude. The new microprocessor-based production methods now threaten to further widen this gap.
>
> Unfortunately we are still trapped in the notion that we enjoy comparative advantage because our labour is cheap. But robotized production will be cheaper than the output of the cheapest labour imaginable in any environment. This will doubtless set off convulsions of mental and physical readjustment. In advanced countries where the blue-collar production oriented labour is already a small and shrinking proportion of the total work force, the problem will be one of coping with structural unemployment and retraining for white collar oriented functions. The change in the working pattern of the white collar workers resulting from a new information and communication technology of course will be close to traumatic".

This is a desperate vision already for advanced countries. It is hardly less desperate for the "8 crores". In India's tragic circumstances, free and rapid technical progress has not much expanded, and may even in future contract, employment in the organized sector; for technologically that sector has still a very long way to go, and can reach "world level" only with a massive increase in productivity.

But above all such a policy offers no promise of immediate or medium-run improvement for the "60 crores". Basically, they can only benefit, in Mr. Ram's scheme of things as in the more dogmatic and inhuman schemes of an older generation of technocrats, from "trickledown": the gradual and virtually unplanned percolation of prosperity from the organized sector. But this expansion is, as one has seen, very doubtful.

It should be noted that supporters of "trickledown" come from the left as well as the right of the organized sector. The great Indian debate about private property and a free market versus public property and a degree of planning has extremely little to do with the "60 crores", and does not, in the terms in which it is now conducted, affect their fate. Thus as a left-wing technocrat of more traditional mould said, India's main problem is to raise (by better management and planning) the rate of profit, even in the private sector: then there will be more investment, and so more output. Inter alia there will be more tractors, and "so we shall mechanize agriculture". When asked "and what will they do?" he did not understand. When the question was repeated, he still did not understand. To the question "What work will they do?" he replied "Oh, they will sit and drink beer".

Fleeting words, in an informal conversation, hardly meant seriously. But they are very revealing. For there can be no trickledown if you put people out of work; not even beer will trickle against gravity. It is the business of educated and thinking people, all of them by definition in the organized sector, so to plan that sector's development that it will not directly harm the "60 crores". For sales to the "60 crores" are themselves liable to constitute free and rapid technical progress in their economy too. Cheap machine-made cloth knocks out khadi, of course, but cheap tractors knock out labour directly. All this would be excellent if people have something else to do, but if organized employment doesn't grow they won't.

So one comes around again to stronger restraints on technology in some industries: the declaration that selected labour-intensive techniques are "protected species". Labour intensity must be protected against both internal and external competition, i.e. from the installation of better machines at home and from the importation of the cheaper products of those machines if situated abroad. The choice of these industries is admittedly a difficult technical and political task, and such controls, while easier to enforce than price controls, must still cause trouble. It is perhaps best to choose a few large and simple industries such as cotton-weaving, where indeed a few such controls exist already. It remains important for India's ultimate future, present self-respect and indeed military posture that technology should grow rapidly outside this "game preserve". There is nothing disgraceful about Bharat Ram's high-technology vision of the "8 crores". Indeed without it they may emigrate: a brain drain clean contrary to every other Indian interest.

It may be asked what will happen to the national income? Its growth will diminish during the period of the introduction of the technology controls, in order that employment may grow quicker. Income will also be more equally distributed. Specifically, the income of the organized sector will be reduced each year by the greater amount it pays for the protected goods: but "an old tax is no tax" - growth will pick up again.

One refers, of course, mainly to process innovations, and so does the actual Indian legislation (to which we now turn), though without using the phrase. Product innovations in the textile industry are common, since the product may fairly be defined as a series of combinations of heat, colour, texture etc. But it happens that a comparatively primitive technology, especially in weaving and finishing, can provide most of them, though at great cost.

The Indian Government's technological restrictions are:

- selected (woven) products are reserved for the "decentralized" sector;
- the use of filament yarn by the "organized" sector is restricted; and
- yarn exports are restricted to assure a regular yarn supply to the "decentralized" sector, which mainly weaves not spins. (Adhyaru _et al._, 1979, 43).

These controls, be it noted, do not at all exclude technical progress within the "decentralized" sector: indeed the Government strongly encourages it. In extreme circumstances this would be wrong, and indeed if it progresses far enough the decentralized sector will cease to exist separately. But without a good deal of such progress the sector will not keep up with product innovations, and consumer dissatisfaction would become intolerable. And so of course process innovations seep in as well.

The main point is that in all market economies there is vast unemployment and, whatever the cause, technological controls can be part of the cure. The cause, incidentally, is clearly monetarism. Monetarism seems to respond to some deep need in the human psyche. So it is not going away, and in any case the damage it has done is so vast that many millions in the advanced capitalist world have been rendered unemployable for the rest of their natural lives. These people all need protected jobs. If you do not agree that monetarism is far and away the main cause of unemployment, and actually allocate to technical progress a large part of the fault, your attitude should of course be less complicated, but the result is the same.

The protection of any job means that neither demand nor technical change may destroy it. The defial of demand is less defensible: small subsidies, maybe, but no-one would tolerate the piling up of mountains of unsaleable commodities, unless it be in agriculture. Such policies go "against the grain" of the capitalist system. Butter mountains are very unpopular, steel mountains or type-writer mountains would be totally unacceptable. But the idea of resisting technical progress is altogether less controversial: indeed it is a straightforward part of trade union tactics and strategy. Nevertheless a legal, as opposed to grassroots, prohibition of new technology, and still more the destruction of recent technology, is a very serious affair, and would not be easily accepted.

Above all, it would affect our balance of payments: also the most sensitive element in our technological snobbery (above). In theory, one could delay technical progress at an even rate in all branches of the economy. In practice that would mean a perpetual pressure on our balance of payments, because import penetration would be forever rising and exports forever falling, and devaluation for whatever reasons always insufficient.

It is accordingly suggested that protected jobs should be confined to the non-trading sector, which makes directly neither exports nor import substitutes. There are further criteria:

- the jobs should rarely be directly tax supported. With tax support as well we are creating able-bodied pensioners;
- militant unions should as far as possible be excluded from the circle of beneficiaries;
- other similar principles, such as jobs for the disabled, should be applied in much the same way. It is true that the disabled can work on very high technology, but disablement quotas should not be imposed on unprotected firms. In the same way such firms have certain labour-intensive operations, such as materials handling in Soviet factories; but they should not be hindered from abolishing them if it is profitable; and
- all minimum wage laws should be summarily abolished.

What is the cost of such a policy to: (a) society, (b) the protected sector itself, and (c) the buyers of the output? The answer to (a) which is the main point, is, in money terms, not much, since one saves the dole immediately and in the longer run also the crime prevention costs. Against this is the administrative cost of yet another series of regulations. In larger than merely monetary terms there are of course greater and greater gains to register the wider we look: above all the areas OBC in the figure.

As to (b), no firm's competitive position is of course changed. But the first problem is that each industry in the protected sector has to charge higher prices. Even though the industry-wide demand curve is inelastic, this is a very serious matter and will lead to protests. But a very large part of the demand is public: teachers, road-builders, health workers, etc. That is to say, much of the protected sector faces inelastic public demand, which contradicts our condition in the first point above and seriously reduces the value of the whole proposal.

A second problem for industries thus singled out is the morale of their more skilled employees in the long-run. What engineer wishes to be condemned to "inferior" machinery? What manager does not resent "mollycoddling"? It will probably be necessary to designate excepted enterprises, which have permission to import or invent whatever they please; because it is particularly wrong to let the country fall behind altogether in any branch.

It is then on these points (b) that the whole idea of technological controls may founder. If they cannot be made minimally acceptable to the industries on which they are imposed, they will not work at all. It is suggested that the protected jobs should be in designated occupations, not branches, within the non-trading sector, and specifically those upon which the technology of the branch does not depend; secretarial, materials handling, catering, etc. With the advance of electronics we may shortly have to add elementary teaching, dispatching, and heaven knows what besides: our controls need not protect only the unskilled. It will be observed that this answers the second problem just discussed, but not the first.

The buyers or the taxpayer (c) must of course shoulder the burden of the extra cost. In so far as the taxpayer pays, he does not lose but he gains, as already shown under (a). The experience with individual buyers in the market is that they have never rioted against the vast and unjust levies made upon them by trade union restrictive practices, which of course weigh upon single commodities quite disproportionately.

The idea of technological controls, has thus been floated and an attempt made to try and sink it. It seems to be still around, though water-logged. It is quite obviously no panacea - but after all, the disease is very desparate.

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SOME CONSIDERATIONS CONCERNING THE INDUSTRIAL DEVELOPMENT STRATEGY AND POLICY OF THE DEVELOPING COUNTRIES IN THE EIGHTIES AND THE NINETIES by L.Z. Zevin*

The developing countries' industrial development experience of the 1970s permits certain conclusions that could prove useful in defining the strategy and policy in this field for the 1980s and 1990s.

Many developing nations have scored definite successes in industrial development. Their industries have become the most dynamic sector of their national economies, possessing newly created industrial capacities, producing for internal consumption goods that used to be imported, increasing the output of manufactures for export, and substantially broadening employment opportunities. With the direct participation of the state, some of these countries are building large industrial and infrastructure projects using up-to-date technologies and skilled labour.

At the same time, however, the process of industrialization in the developing nations is meeting with serious obstacles, both internal and external. The complex and diverse tasks of overcoming backwardness and speeding up the rates of economic development and industrialization require, for their solution, the creation of favourable conditions both at the national and international levels.

In the developing countries themselves, these include the need for progressive socio-economic changes with a view to dismantling, in the first place in agriculture, the archaic social structures posing obstacles in the way of the growth of effective demand, to modernizing the economy, to resolving the food problem, and marshalling all the potential resources for the needs of development. Industrialization strategies can be successful only through the active participation of the working masses in the towns and country. There is also a growing importance for the policy of a more equal income distribution, including implementing a tax reform, carrying out effective agrarian changes, increasing state funds of social infrastructure, and introducing state regulations of prices and distribution.

Assistance to industrial development must provide for the restoration and assertion of national sovereignty over natural resources and their development to meet the needs of national economy and its industrial sector, as well as for effective control over the activities of private foreign business and transnational corporations.

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* Professor, Institute of Economics of the World Socialist System, The USSR Academy of Sciences

Overcoming these countries' backwardness is a global task whose resolution will help improve the international relations and make for the progress of mankind as a whole. The system of the international economic relations, resulting from the colonial and post-colonial periods, geared to suit the self-seeking interests of monopoly capitalism, and above all those of the transnationals, remains the principal external obstacle in the way of the developing countries in their efforts to overcome backwardness, to build a modern industry, and to create an independent economy.

Crucial to the success of the economic and social progress of the developing countries is the need to curb the arms race, banish the threat of a nuclear catastrophe, and end local conflicts.

The performance of the 1970s has laid bare significant unevenness in the levels of industrial development reached by the different groups of countries in Asia, Africa and Latin America. Some, more industrially developed countries have proved able to appreciably increase their rates of growth, while those of the least developed nations did not exceed one per cent during that decade.

In countries with high rates of national income growth, however, there has also been an increase in the number of people living in misery, growing disparities in the national income distribution, and unshrinking armies of those jobless and partially employed. The sharp social stratification and misery affecting the bulk of the population, especially in rural areas, have been exacerbated by the uneven development and structural disparities in their economies, as well as by the limited scope of the progressive socio-economic changes in the main group of these countries.

In the course of the 1970s, the slowing down of growth rates in the economic "centres" did not trigger an instantaneous economic recession in the "periphery", i.e. in the developing nations, since for some time the international monetary and credit systems continued to operate as a compensator permitting the receipt of means for sustaining economic growth and servicing debts. By now, however, these possibilities are practically exhausted. That is why one can expect further difficulties in obtaining external resources for development, including industrial growth. This ought to prompt the urge to diversify foreign economic ties through expanded cooperation between the developing countries themselves, as well as with the socialist states.

The aggregate impact of these internal and external factors is stimulating a re-orientation of the industrial development policies in many of the developing nations. In the process, in some cases urgent tactical tasks requiring genuine solutions, tend not only to overshadow the long-term, strategic objectives, but also to cause a rupture between them and a substitution of tactical tasks for strategic objectives. In industry, this manifests itself in a lower priority for industrialization, in the loss of the long-term perspective, and in the loss of sight of the final goals of industrial development.

For this reason, the objective of UNIDO IV should be the discussion of the problems of industrialization itself. Industrialization should be regarded as a long-term policy, a strategic line over a definite, rather long period in the process of national revival of the developing countries. The difficulties, individual errors, and the excessive hopes of the 1960s and the 1970s that failed to materialize, must not be allowed to lead to the abandonment of the policy of industrialization, or to its "dismemberment" into fragmented and desultory measures. It is only a consistent policy of industrialization, and a strategy aimed at establishing a national economy on a modern basis, that can integrate a multi-structured economy into a single economic organism, create the material and technical base for the process of national reconstruction, strengthen other sectors - with agriculture in the first place - and bolster the country's position in world trade and the international division of labour.

It would, probably, not be realistic to try to work out a single, uniform industrialization policy and strategy for the whole of the developing world. There appears, however, to exist a number of the most general features that are indispensable for the pursuit of industrialization in the specific conditions of an individual country, to which the attention of UNIDO IV should be drawn. These include: enhancing the role of state enterprise in industrializing an industrially backward nation; ensuring reasonable protection of the emerging national industry against unfavourable effects of external factors; applying the levers of medium-and long-term planning and programming, assuring industry's leading role in its interaction with agriculture and its modernization; broadening the participation in the international industrial co-operation by expanding the traditional and forming new ties, overcoming the unilateral orientation in foreign economic relations, and striving for an optimum combination of indigenous and external technologies with a view to the eventual establishment of a national scientific and technological base.

Crucial to the shaping of the industrialization strategy and technology will be to determine its basic, principal criteria. The impression now is that is is industrialization's international criteria - like restructuring the world economy, ensuring the supply of energy and raw materials, and adapting to other world economy processes - that are now being brought to the forefront. These criteria are, doubtless, of extraordinary importance, and their impact must be taken into account in working out a developing country's policy and strategy in the field of industrialization. If, however, they come to be regarded as being of paramount importance, the developing countries' industrialization and industrial development will be determined not by internal needs and socio-economic tasks, but rather by factors external to national economy.

Given the actual current alignment of forces in world economy, this would amount to nothing more than a "runner-up", "imitating" type of industrialization, subjected to external factors and in which the dominant role is played by the industrially developed "centres" and transnationals, rather than the interests of the developing countries themselves. This approach is incompatible with the concepts of national and collective self-reliance. That is why UNIDO IV could, in discussing industrialization policies and strategies, pronounce itself in favour of the priority of internal criteria, but, naturally, taking a possibly fuller account of the external factors' impact and possibilities of using them. This approach would be in line with the political watchword "Industry for the People" that could be proclaimed by the Conference.

As an international organization, UNIDO ought to reflect the fact that at present the process of industrialization in the developing countries, proceeds within the framework of different social systems, which accounts for the application of quite different implementation methods and differing policies and strategies. One of them is based on public ownership of the means of production, and planning, the other on private property and the market instruments. UNIDO must grant equal standing and "citizenship" to both types of industrialization, and the documents of the General Conference and of other bodies ought to analyse both the common and the specific characteristics of each type.

There is a possibility (and the need) for a detailed analysis of the more profound objectives and nature of industrialization. In our day, they are formulated quantitatively, par excellence ("the Lima objective" is to reach 25% of the world's industrial output, and the Arousha Declaration speaks about 30% of the world's exports of manufactures). To this, one ought to add also some qualitative characteristics, like integrating the national economy into a single whole on a modern basis, increasing per capita industrial output and raising the living standards, developing agro-industry, consistently raising the technical level of industry and of the whole of economy, and searching for an optimum combination of the large, medium-size and small enterprise at the different development stages, as well as of the capital and labour intensive processes.

In the 1970s, concepts such as basic needs, endogenous development, preferential development, of light and medium-size industries, deployment of industrial enterprises outside big cities, the link between industry and agriculture, agricultural development, etc., gained increasing currency. It would be worthwhile giving thought to ways of combining these concepts, which express the essential needs of individual countries and definite stages in their development, with the long-term policy and strategy of industrialization. Without such a combination, industrial development policy will tend to be fragmented, to lack continuity, and to lose sight of the final goals, while the national forces will lose the ability to channel the process of industrial development into the mainstream of the basic long-term interests of the developing nations. In this situation, the external resources will go mostly into sectors and spheres servicing the needs and interests of production and capital outside the country in question.

Thus, what is called for is an integrated approach to the policy and strategy of industrialization so that they could incorporate short and medium-term development concepts mentioned above, and combine them into a single effort as applied to the specific conditions of a particular developing nation where industrialization is one of the principal goals. This would make it possible to provide to a large extent an indigenous basis for the process of expanded reproduction, and to create more favourable conditions for the country's participation in the world trade in manufactures, and for the international industrial specialization and co-operation.

Resolving this task may be assisted by industrial development through setting up not only individual, albeit even large enterprises, but also sectoral (industrial and agro-industrial) complexes consisting of groups of related productions, and through a parallel and well-timed development of service enterprises and those supplying materials and components, as well as the development of product markets both inside the country and elsewhere. Such complexes are apt to stimulate specialization and co-operation inside the developing country, a fuller mastery of foreign know-how and technologies, and the development of national R and D activities. Their role is great in doing away with a lop-sided industrial development, the excessive groundswell of individual production and the unilateral specialization in the international division of labour. In the process, the export sector can be created not as an isolated enclave, but rather as an integrated part of the emerging modern economy of a developing nation.

In the process of industrial development, an ever growing weight is being added to the possibility of utilizing the achievements of the scientific and technological progress, and of gaining access to foreign experience and knowledge.

Scientific and technological progress is lending a special urgency to establishing the order of priorities in introducing advanced technologies into a backward economy. The increased scale of production in our day requires larger investments, greater financial inputs into the development of science and applied studies, mass training of skilled cadres, and the search for an optimum combination between capital- and labour-intensive production, large-scale and small-size industries, and between unsophisticated and science-intensive productions. The problem of striking an optimum balance between the internal markets capacity and product output is growing more complex, and the role of foreign markets and international cooperation is growing.

The borrowing of foreign technologies and know-how is helpful to some extent in coping with the set of these complex problems, forming a modern national industry and in utilizing the achievements of technological progress in other national economy sectors. The experience to-date indicates, however, that the advanced technologies and related know-how imported fail to deliver the expected result and remain an alien body in the developing economy, if their introduction does not go hand-in-hand with the mass-scale training of local specialists and establishment, in the country, of a developed scientific and technological infrastructure including a network of general education and vocational training schools, secondary specialized and higher education establishments, research institutions, design organizations and centres for scientific and technological information. Of no lesser importance is the development of institutional framework ensuring a normal functioning of new equipment and its link with the traditional sectors as well as the establishment of material and technical supply.

For these reasons, the developing countries' strategy of cooperation with the developed countries has to rely on a combination of the use of foreign technologies and know-how with the national efforts, that would eventually open the way for a self-sustaining growth of the developing countries' production and scientific and technological potential on the basis of deepening the international division of labour in production and scientific and technological research.

Practice indicates that this is especially characteristic of the relations with the developed capitalist countries: the most typical trend in the transfer of technology to the developing countries is the granting or sales of licences and know-how, equipment supplies for the enterprises, assistance in its assembly, organization of the production process, etc. In the process, the highest level of cooperation is the sector, when foreign technologies and know-how are used for the development of an individual national economy sector (like the production of petroleum, copper, tin, bauxite, aluminium, oil refining, individual types of machine building and others). Here, it is necessary to stress that the transfer of technology and know-how as a rule fails to be accompanied by assistance in the establishment of the scientific and technological, design and laboratory experimentation base at the level of both the enterprise and the whole sector.

The sectoral approach to the transfer of technology has some advantages, permitting concentration of resources for establishing, in developing countries, priority productions and sectors using favourable natural climatic conditions and the immense labour resources.

At the same time, however, the sectoral approach reveals substantial deficiencies manifesting themselves with growing force at this time of rapid scientific and technological progress. The transfer of technology for building individual large projects fails to create sufficiently strong stimuli for the integration of national economy on the basis of modern technology, and in some cases tends to perpetuate the existence, in the developing economy of the traditional and the modern sectors. Not infrequently in this case, the modern sector has a strong export orientation, with no organic links with other sectors, which hinders the spread of scientific and technological progress to the entire national economy, while these enterprises and sectors themselves show a tendency to rely mostly on imported R and D findings, equipment and technologies.

A selective transfer of technology is not conducive to the development of national specialization and cooperation, which significantly reduces the national economic effectiveness of foreign technology and may simultaneously increase technological dependence on partners in the developing countries. The weaknesses of confining technology transfers to one sector manifest themselves with special clarity in the social sphere.

Not infrequently, this leaves outside the bounds of technological progress sectors whose development is crucial for national revival and liquidation of the fragmentation of national economy, while the fruits of technological progress are enjoyed by relatively narrow segments of the population, incomes differentiation intensifies, and the level of investment precludes the use of possibilities for providing maximum employment opportunities.

Finally, cooperation at the sector level does not do away with the lopsidedness of the developing economies, and prevents the achievement of expanded reproduction and establishment of a scientific and technological infrastructure on the national basis that could avoid the growing unilateral dependence on the developed states and transnational monopolies. The application of state regulation levers can only mitigate some of the unfavourable implications of the above widespread practice in the transfer of equipment and technology, but cannot overcome its principal deficiency, i.e., the inability to resolve a developing country's essential economic, scientific and technological and social problems comprehensively and with account for the overall national interests.

The Soviet Union and the other countries of the socialist community, in working out programmes for the transfer of equipment, technology and know-how to their partners in developing countries, strive to take as full account as possible of the new elements generated by the scientific and technological revolution for use in overcoming backwardness and in the division of labour between countries with different levels of development. They hold the view that the strategy of the transfer of equipment, technologies and scientific and technological knowledge, which meets the changed conditions in the world and the ideals of the new international economic order, must be based on an integrated approach to the problems of the developing countries. Its aim should be to assist in shaping a modern economy and building territorial production (industrial and agro-industrial) complexes, aiming at the eventual establishment of a rational national economy complex in the developing nation, meeting its specific conditions.

Establishment of an integrated economy is a long process, requiring a maximum mobilization of the efforts of the entire nation. This presupposes the need for broadening the state sector and using the instruments of planning, since successful mastery of foreign scientific and technological experience and creation of a national scientific and technological potential in the conditions of the developing countries are possible only on the basis of a long-term state policy. The state is capable of assuring the consistent application of the national economy effectiveness criterion in borrowing foreign and developing national technologies, and using them in the interests of national rebirth and bringing the fruits of the scientific and technological progress to the broad masses of the people.

An effective transfer of technology and its adaptation to local conditions with the view to speeding up industrialization and industrial development are possible on condition that skilled cadres are trained at the same time. In the conditions of the scientific and technological revolution, the rates of expanded reproduction are increasingly determined not only by the level of capital formation, but also by a skilled labour force and the state of the system of general and specialized education. It would appear that in countries with a backward economy, a low level of general education and vocational training, with low skilled labour frequently combined with imported up-to-date technologies, the impact of this factor on economic life is all the greater.

A lasting solution to the problem can be found only through large-scale training of skilled specialists for the needs of industry, agriculture, science and culture, with the assistance from developed nations. An important characteristic of cooperation in this field is the recognition of its long-term basis, since the process of training a specialist with top skills may take 10 to 15 or even 20 years. And, finally, upon completion of their education, specialists must go back to their country in order to contribute to its national rebirth.

Background Documentation on the Industrialization Experience in Specific Developing Countries

VENEZUELA'S INDUSTRIAL STRATEGY OVER THE PAST DECADE AND THE COUNTRY'S PROSPECTS FOR INDUSTRIAL DEVELOPMENT by Ms. Eglée Iturbe de Blanco*

THE GENERAL THRUST OF DEVELOPMENT

Since the introduction of a democratic form of government in Venezuela in 1958, vigorous and uninterrupted support has been given to the country's industrialization process. The first step in this direction was the establishment, in December 1958, of the Central Office for Co-ordination and Planning under the Office of the President of the Republic (CORDIPLAN) and the approval, in July 1959, of a Declaration of Industrial Policy Principles, which, in the absence of a formal development plan, provided guidance for the measures taken to promote the industrial sector.

The guidelines established in this Declaration laid the basis for an import-substitution policy supported by a tariff protection policy which shielded national industry from foreign competition and contributed to the creation of favourable conditions for the establishment and development of new industries.

This tariff protection policy was accompanied by a policy of duty exemptions for raw materials and capital goods for the purpose of reducing the costs of the imported components needed for the production process, and by a financing policy designed to make funds available on preferential terms.

Along with the formulation of these basic policies, a set of industrial priority criteria were adopted, under which the following kinds of activities were to be promoted on a priority basis:

- industries which are directly or indirectly connected with basic Government projects;
- industries which make intensive use of domestically produced and labour-intensive agricultural and mining products;
- industries which make intensive and continuous use of unskilled labour;
- industries which directly generate or save foreign exchange;

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* Ms. Eglée Iturbe de Blanco, Asesor del Presidente, Instituto de Comercio Exterior, Venezuela.

- industries which because of their relatively low production costs can compete with imported products without the need for strong tariff protection; and
- industries which are located at sites appropriate for promoting industrial decentralization.

These objectives, together with the development of the basic industries, represented Venezuela's industrial development strategy throughout the 1960s, the second half of which saw a stronger emphasis on the import-substitution process and the employment generating aspects of industry. At the same time, the first cautious recognition was given to the need to begin exporting non-traditional manufactured goods.

By the beginning of the 1970s, Venezuelan manufacturing industry had already achieved major advances in import-substitution in respect of consumer goods and was faced with the task of beginning the second phase of the import-substitution process, which was to include the manufacture of intermediate and capital goods and Venezuelan participation, with domestically manufactued products, in international markets. Economic integration was also beginning to become a factor in the country's industrialization process. Accordingly, for the first half of the decade, a more detailed development strategy was formulated, in the Fourth National Plan for 1970-1974, stressing the opening of the Venezuelan economy to the outside, the improvement of productivity and the consolidation of existing industries.

This strategy was pursued during the entire past decade. In the second half of the 1970s, under the Fifth National Plan for 1976-1980, emphasis was placed on the large-scale development of state-owned basic industries producing intermediate inputs such as steel, aluminium and petrochemicals, the intention being to utilize additional national revenue generated from 1973 by higher petroleum prices. The second half of the decade also saw this same source used to increase incentives (especially financial benefits) to the industrial sector, coupled with the introduction of export-promotion machinery.

With the adoption of the Sixth National Plan for 1981-1985, three important adjustments were introduced, beginning in 1980, in the import-substitution model: first, the rapid growth of the basic industries was curbed, and attention was concentrated on consolidation of the existing industries and improvement of their efficiency; second, greater emphasis was placed on the social aspects of industrial development; and, third, there were to be selective reductions in the level of protection accorded certain products for the purpose of improving the efficiency of the sector.

These adjustments were in response to the fact that, generally speaking, Venezuelan industry had been enjoying high levels of tariff protection which limited its efficiency and export potential, and at the same time permitted it to operate at low levels of productivity and with much of its installed capacity standing idle. Likewise, over the past decade the country's industry failed to maintain a rate of growth of sufficient to keep pace with the expansion of internal demand, thereby creating a widening gap that had to be bridged through imports.

To meet this situation, a strategy was designed for this period, which, while conforming to the same import-substitution model, would make it possible to redirect the industrialization process through changes in the fundamental policy levers which had been applied until that time, i.e. the tariff protection policy, the price policy and the setting of priorities for industry.

With a view to making the products of domestic industry better able to compete with imported goods, tariff protection was reduced on a large number of items by cutting the number of products requiring import licences to a minimum and lowering or eliminating the duties on other products.

The price-control policy was liberalized by sharply curtailing the list of regulated products. As a parallel measure, the subsidies for most industrial products were eliminated.

In the area of industrial priorities there was a shift of emphasis to the following sectors:

- agro-industry;
- textiles, clothing and footwear;
- pharmaceutical chemicals and drugs;
- construction materials;
- basic industry (iron and steel, aluminium, petrochemicals);
- capital goods;
- electronics and electrical appliances; and
- motor vehicles.

In the wake of the recent exchange-policy measures introduced by the Government in February 1983, which after 20 years of free convertibility established an exchange-control system coupled with a devaluation, we are now seeing a return to total protection of the internal market and to non-selective import substitution, as well as to a restrictive pricing policy indexed to the external component of every manufactured product.

Characteristics of the industrialization process in Venezuela

High rate of industrial growth

Until the end of the 1970s, industrialization was progressing rapidly in Venezuela. Between 1950 and 1978, the annual growth rate of the country's industrial product was 7.8%, higher than that of the total product over the same period which, according to the traditional indicators, reflected a satisfactory degree of industrialization. During the period 1979-1982, economic expansion in the country stagnated, as part of a downturn that also affected the manufacturing sector. Nevertheless, and despite the lack of growth in the Venezuelan gross domestic product, manufacturing industry did grow over those three years at rates of 4.9, 2.1 and 0.2%, respectively (see Tables 1 to 3).

High degree of production concentration at a small number of enterprises and in the most densely populated regions of the country

Both these factors spring from the fact that the pattern of import substitution for consumer goods has favoured the higher-income segment of the population, which is concentrated in the largest towns, and from a deliberate industrialization policy which has encouraged the gradual conversion of importers, with the foreign capital that was supplying the imports, into producers of the goods they had previously imported.

In 1961, when the industrialization process was first launched, there were 196 large firms, which accounted for 2.6% of the total number of enterprises in Venezuela and employed 58,500 persons. There were also 6,216 small businesses employing 57,500 persons, i.e., 10,000 persons fewer than the bigger companies. By 1978, these figures had changed in favour of big business, which now numbered 793 establishments and was employing four times as many people. Small industry was operating 6,753 establishments and, with only about 10,000 more persons on the payroll than in 1961, was maintaining an employment figure very close to that year's level.

We find this same pattern of concentration involving a few large units not only in employment, but also with regard to production, products and investment. Under all these headings, the large enterprises account for more than three-fourths of the totals (Table 4).

This kind of "industrial polarization", albeit in different degrees, can be observed in virtually all branches of industry and explains the existence in Venezuela of two parallel and relatively independent structures. Despite this differentiation, industrial policy is formulated on a production sector or production branch basis, and this often reveals the contradictions of the dual system. This is particularly relevant in the area of protection and price levels, where the criteria employed in determining the levels may exaggeratedly favour the larger producers or else disadvantage smaller enterprises to the extreme.

Heavy dependence on external sources for technology, capital goods and intermediate inputs

The open nature of the Venezuelan economy, the traditionally plentiful supply of foreign currency from petroleum, with which the requirements of the other sectors of the economy have been financed, and the import-substitution process which has been introduced in respect of consumer goods, are all factors which have made the country's industrial producers heavily dependent on external sources and, consequently, highly vulnerable to fluctuations in the country's foreign exchange earnings.

Over the past eight years, capital goods have accounted for between 24 and 32% of total imports. During the period 1976-1980, capital goods valued at around $US 10 billion were imported into the country, the average annual growth rate for this period being 20.6% (Table 5). These imports represent about 80% of the apparent consumption of capital goods, with the approximately 20% remaining obtained from domestic manufacture.

Nearly all the technology used for industrial production comes from abroad. According to the 1981 figures from the Office of Foreign Investment, the industrial branches with the largest number of technology contracts were the chemical, pharmaceuticals, plastics, and rubber industries, followed in second place by the food, beverage and tobacco industries, and in third place by the electrical machinery and equipment industries.

As of 1981, accumulated foreign investment had reached US $ 4.13 billion, distributed among the various branches of industry in much the same order of ranking as the technology contracts (Table 6).

Intermediate inputs for industrial production account for about 15% of the gross value of manufacturing production.

Inadequate linkages within the industrial production sector

Despite the advances achieved in the import-substitution process, as recently as 1980 traditional industry still accounted for 47.8% of the industrial product, intermediate industry for 35.6%, the engineering industries for 14.4% and the remainder for 2.2%, in terms of 1968 prices.

This industrial structure, which at the beginning of the 1970s was mostly concentrated in consumer goods, changed very slowly over that decade, as can be seen in Table 2, with the consequence that the vulnerability of the sector already mentioned was aggravated.

Declining productivity

Productivity in Venezuelan industry has grown at rates comparable with, and in many cases higher than, the rates in other developing countries.

In a 1979 study prepared by the author of this report and based on UNIDO documents, production, employment and productivity growth rates were compared for 14 developing countries, among them, Argentina, Brazil, Colombia, the Republic of Korea, Singapore and Mexico. This study showed that in six of the nine branches of industry surveyed the productivity growth rate in Venezuela was higher than in most of these countries.

By its very nature, the process of industrial growth in Venezuela was initially free of conflicts between employment and productivity. In fact, while the industrial product during the period 1961-1977 grew in real terms by 10.8%, employment rose by 6.3% and productivity by 4.2%, which meant that while the number of persons employed in factories increased from 157,000 in 1961 to 416,000 in 1977, production per employee doubled in real terms during the same period from an average of $ US 6,500 to $ US 12,800 (in 1968 prices).

However, this trend began to lose ground starting in 1979, since with the contraction of production activity there was, first, a reduction in productivity as the same number of employees produced smaller volumes of goods, and later on a drop in employment levels, especially in the areas which, like the metalworking and engineering sector, depend most heavily on investment (Tables 7 and 8).

Industrial development prospects and strategies for the 1980s

Venezuela is currently entering a new phase of its industrial development, a phase which must respond to the changes which have occured in the domestic economy and in international market conditions.

The first phase of the industrialization process is now largely complete and already shows certain signs of exhaustion. Accordingly, the task in this new phase will be to correct the shortcomings which have come to light in the process by gradually redirecting its policies and approaches.

Moreover, the future development of industry in Venezuela must take into account the changes which are occurring in the developed countries and which will have a decisive influence in the developing countries. Some examples are the restructuring of industry in the developed countries, industrial redeployment, and the internationalization of trade in manufactured goods, all factors which make it incumbent on the developing countries to devise new, more competitive and specialized ways of sharing in international trade.

During this second phase, Venezuela will have to pursue an industrial development strategy which at the same time that it broadens the import-substitution process also achieves progress in the export sector.

The broadening of the import-substitution process will apply to all the products manufactured in the country today which contain

- substantial improvement in manpower skills at the management and production levels, with special emphasis on national engineering capacity, technology and technical competence;
- the formulation and implementation of an industrial strategy and policy to ensure a sustained investment and development programme; and
- the retention of the essential decision-making authority in the hands of Venezuelan nationals in order to ensure that foreign capital is channelled to those areas which are considered to be in the national interest, thereby reinforcing the actions of the national business community.

From the quantitative standpoint, industry must play a major role in sustaining a high rate of growth for the domestic economy and in generating a growing volume of foreign currency revenues from the petroleum sector. The principal elements here are:

- industrial growth at a higher rate than that of the product, resulting in a higher degree of industrialization;
- reduction of the net imported component in manufactured goods by speeding the import-substitution process and promoting the export programme; and
- raising of the rate of investment in manufacturing industry.

The strategic concepts discussed in a simplified way in this paper have been designed to provide continuity and stimulus to the Venezuelan manufacturing sector for the remainder of the present decade, at a time when structural conditions throughout the country's economy are undergoing unprecedented transformations caused by far-reaching changes in the principal areas of monetary and exchange policy and in the face of the prospect of a reduction in national revenue owing to a possible decline in petroleum earnings beginning in 1983.

In the past, both these factors accounted for the traditional availability of foreign exchange with which to finance the country's development. Accordingly, it will henceforth be the task of the manufacturing sector to generate part of the external resources necessary to pay for its imported supplies and capital goods.

For its part, the devaluation of the Venezuelan bolívar will make for improved competitiveness in a number of sectors that have so far been greatly affected by petroleum costs. This should be reflected in incentives to industry to start exporting. Another reason for doing this, moreover, is to compensate for the expected stagnation in the internal market.

In the light of these facts, it would appear that, in the next two or three years, once the cost adjustments and the internal structural changes have been accepted, Venezuelan manufacturing industry is likely to resume its traditionally high rate of growth. This will depend mainly on whether the country adopts the proper policy measures to bring about the required reorientation of its industrialization process.

Table 1

Manufacturing industry product
1970-1981

Industry	1970	1975	1980	1981
	(millions of 1968 bolívares)			
TOTAL (excluding petroleum refining)	6 219	9 286	12 404	12 499
Traditional Industries	3 274	4 695	5 926	6 080
Foods	1 280	1 807	2 228	2 269
Beverages	675	1 071	1 925	2 148
Tobacco	311	460	602	624
Textiles	495	652	473	410
Clothing	213	337	259	252
Hides and skins	29	44	35	36
Footwear	87	139	157	176
Wood and cork	67	53	51	56
Furniture and accessories	117	132	136	109
Intermediate Industries	1 880	2 862	4 418	4 306
Paper and pulp	274	396	471	535
Chemical products	536	853	1 696	1 517
Petroleum and coal derivatives	7	6	8	9
Rubber and rubber products	156	262	331	356
Plastics	86	158	164	158
Non-metallic minerals	411	560	607	612
Basic metals	410	627	1 141	1 119
Engineering Industries	840	1 489	1 798	1 846
Metal products	255	462	597	607
Machinery and equipment	67	87	84	70
Electrical machinery and equipment	205	373	442	449
Professional equipment and instruments	5	19	36	36
Transport facilities	308	548	630	684
Remaining Group	225	240	271	267
Graphic arts	180	187	182	184
Miscellaneous	45	53	89	83

Source: Central Bank of Venezuela, economic reports.

Table 2

Composition of industrial product

(percentages of value in constant 1968 prices)

Industries	1970	1975	1980	1981 1/
Traditional	52.7	50.6	47.8	48.7
Intermediate	30.2	30.8	35.6	34.5
Engineering	13.4	16.0	14.4	14.8
Remaining group	3.7	2.6	2.2	2.0

Source: Central Bank of Venezuela, economic reports.

1/ Tentative figures.

Table 3

Degree of industrialization of Venezuela

Year	GDP	Manufacturing industry product 1/ (millions of 1968 bolívares)	Petroleum refining	Total	Industrial product / GDP
1970	50 917	6 219	2 045	8 264	16.2
1975	64 590	9 286	1 348	10 634	16.5
1980	76 612	12 312	1 431	13 743	17.9
1981	77 369	12 337	1 344	13 681	17.7

Source: Central Bank of Venezuela, economic reports.

1/ Excluding petroleum refining.

Table 4

Distribution of Venezuelan manufacturing activity (%)
(1961-1977)

	1961	1966	1971	1974	1977
1. Number of establishments	100.0	100.0	100.0	100.0	100.0
Large-scale industry	2.6	4.5	7.1	7.6	7.3
Medium-sized industry	14.9	18.4	23.8	27.2	24.4
Small-scale industry	82.5	77.1	69.1	65.2	68.0
2. Employment	100.0	100.0	100.0	100.0	100.0
Large-scale industry	37.2	48.3	54.6	55.4	57.9
Medium-sized industry	26.2	26.4	26.2	28.1	25.0
Small-scale industry	36.6	25.3	19.2	16.5	17.1
3. Manufacturing production	100.0	100.0	100.0	100.0	100.0
Large-scale industry	62.2	66.0	72.3	76.6	74.4
Medium-sized industry	18.9	21.4	18.0	17.0	17.3
Small-scale industry	18.9	12.6	9.7	6.4	8.3
4. Manufacturing product	100.0	100.0	100.0	100.0	100.0
Large-scale industry	59.5	60.0	70.1	73.3	77.5
Medium-sized industry	20.7	23.1	19.5	19.6	15.5
Small-scale industry	19.8	16.9	10.4	7.1	7.0
5. Capital assets	100.0	100.0	100.0	100.0	100.0
Large-scale industry	78.7	76.7	79.1	76.0	77.4
Medium-sized industry	13.3	15.1	14.0	17.1	15.3
Small-scale industry	8.0	8.2	6.9	6.9	7.3
6. Average number of persons employed per establishment	21	27	38	41	41
Large-scale industry	298	297	292	296	322
Medium-sized industry	36	39	42	42	41
Small-scale industry	9	9	11	10	10

Source: Eglée Iturbe de Blanco, La Productividad en la Industria Fabril Venezolana.

Table 5

Venezuelan imports classified by product type (1973-1980)

(millions of U.S. dollars and percentages)

Year	Imports	Capital goods	%	Consumer goods	%	Intermediate goods	%	Unclassified goods	%
1973	2 501 347	644 177	25.75	238 846	9.54	1 606 161	64.21	12 223	0.49
1974	3 777 152	764 481	20.23	345 445	9.14	2 656 954	70.34	10 272	0.28
1975	5 309 084	1 385 997	26.10	560 067	10.54	3 361 385	63.31	1 635	0.02
1976	5 876 088	1 739 926	29.61	640 146	10.89	3 496 016	59.50	-o-	-o-
1977	9 760 641	3 135 087	32.12	1 093 951	11.21	5 531 603	56.67	-o-	-o-
1978	10 604 383	3 471 248	32.73	1 365 234	12.87	5 767 901	54.40	-o-	-o-
1979	9 609 940	2 621 994	27.28	1 296 464	13.49	5 691 482	59.22	-o-	-o-
1980	10 652 158	2 554 895	23.99	1 597 484	14.99	6 499 779	61.02	-o-	-o-

Source: Import Directorate, Foreign Trade Institute.

Table 6

Direct foreign investment recorded in manufacturing industry by area of activity 1975-1981

(millions of bolívares)

Activity	Cumulative amount recorded for the years:						
	1975	1976	1977	1978	1979	1980	1981
Manufacturing Industries	2 952.12	3 242.36	3 354.59	3 608.04	3 979.81	4 252.89	4 860.66
- Food products, beverages and tobacco	763.50	653.92	870.14	929.72	948.87	999.36	1 070.51
- Textiles, clothing and leather goods	77.02	190.01	188.83	78.35	89.30	90.24	88.28
- Wood and wood products, including furniture	15.72	16.84	15.79	17.51	19.18	15.72	15.89
- Paper and paper products, printing and publishing	158.87	162.23	182.20	189.26	183.14	195.53	204.96
- Chemical substances and chemical products derived from petroleum and coal; also rubber and plastics	796.55	1 020.67	839.69	1 005.92	1 103.25	1 144.76	1 264.05
- Non-metallic mineral products, except for petroleum and coal derivatives	211.53	210.69	235.01	244.75	238.25	311.88	316.69
- Basic metal industries	116.44	178.60	149.91	136.47	100.48	167.91	597.53
- Metal products, machinery and equipment	754.49	779.42	813.88	941.27	1 149.34	1 264.36	1 237.36
- Other manufacturing industries	58.00	29.98	59.14	64.79	58.00	63.13	65.39

Source: Office of Foreign Investment, annual report for 1981.

Table 7

Value added per employee and per worker (1966-1977)
(in 1968 bolívares)

							Growth rates		
		1961	1966	1971	1974	1977	1961-1977	1961-1974	1974-1977
		per employee							
	Total	27 960	36 463	38 317	40 820	54 486	4.2	3.0	10.1
I.	Traditional industries	26 060	31 647	29 583	32 548	36 059	2.1	1.7	3.5
II.	Intermediate industries	39 694	48 417	58 744	57 288	97 256	5.8	2.9	19.3
III.	Engineering industries	20 977	35 666	39 174	40 728	36 888	3.6	5.3	(3.3)
IV.	Remaining group	19 865	28 687	22 305	26 877	28 177	2.2	2.3	1.6
	Total	27 960	36 463	38 317	40 820	54 486	4.2	3.0	10.1
I.	Large-scale industry	44 654	47 842	48 627	54 028	73 404	3.2	1.5	10.7
II.	Medium-sized industry (upper segment)	28 657	33 492	34 026	35 208	34 313	1.2	1.6	(0.9)
III.	Medium-sized industry (lower segment)	19 568	28 685	25 618	22 944	32 801	3.3	1.2	12.6
IV.	Small-scale industry	15 134	21 147	21 410	17 635	21 291	2.2	1.2	6.5
		per worker							
	Total	37 467	48 031	50 658	53 055	72 137	4.2	2.7	10.8
	Traditional industries	33 939	40 038	37 802	40 659	45 391	1.8	1.4	3.7
	Intermediate industries	55 948	68 755	77 600	80 309	141 778	6.0	2.8	20.8
	Engineering industries	28 800	46 715	50 327	51 751	45 131	2.8	4.6	(4.5)
	Remaining group	28 075	39 920	42 949	37 074	38 452	2.0	2.2	1.2
	Total	37 467	48 031	50 658	53 055	72 137	4.2	2.7	10.8
I.	Large-scale industry	59 554	63 333	66 072	72 480	101 389	3.4	1.5	11.8
II.	Medium-sized industry (upper segment)	36 504	44 793	45 031	44 503	42 731	1.0	1.5	(1.3)
III.	Medium-sized industry (lower segment)	26 147	36 960	31 328	27 677	40 095	2.7	0.5	13.1
IV.	Small-scale industry	20 628	27 870	27 910	22 702	27 400	1.7	0.8	6.4

Source: Eglée Iturbe de Blanco, La Productividad en la Industria Fabril Venezolana.

Table 8

Productivity per worker by industrial branch

(in comparison to the manufacturing average)

Code		1961	1966	1971	1974	1977
		Above the manufacturing average for each year				
313	Beverages	2.23	2.35	2.7	2.97	2.37
314	Tobacco	4.02	3.33	1.7	2.06	1.72
323	Hides and skins					1.74
341	Paper and pulp		1.04	1.38	1.03	--
351	Industrial chemicals	1.82	1.57	1.03	1.47	1.67
352	Other chemical products	3/	3/	2.35	2.42	2.13
353-54	Petroleum and coal derivatives	3.16	5.12	5.43	17.92	3.27
355	Rubber and rubber products	1.23	1.34	1.16	1.38	--
362	Glass and glass products		--	1.30	1.13	--
371	Basic iron and steel industries		2/	1.40	1.53	1/
372	Basic metal industries			1.16	--	2/
383	Electrical machinery and equipment		1.47	1.12	1.03	
384	Transport material		--	1.30	1.54	
		Below the manufacturing average for each year				
311-12	Foods	0.93	0.93	0.99	0.71	0.61
321	Textiles	0.58	0.50	0.76	0.76	0.48
322	Clothing	0.58	0.45	0.56	0.45	0.30
323	Hides and skins	0.58	0.62	0.69	0.44	--
324	Footwear	1/	--	0.38	0.31	0.26
331	Wood and cork	0.44	0.40	0.34	0.28	0.27
332	Furniture and accessories	0.44	0.48	0.40	0.34	0.26
341	Paper and pulp	0.95				0.89
356	Plastics		--	0.73	0.85	0.66
361	Clay, earthenware and porcelain items	0.80	0.82	0.83	0.38	0.48
369	Other non-metallic mineral products	4/	4/	0.83	0.77	0.53
372	Basic metal industries	0.69	0.73		0.62	0.71
381	Metal products	0.86	0.83	0.76	0.60	0.51
382	Machinery (other than electrical)	0.81	0.66	0.70	0.84	0.67
384	Transport material	0.70	0.96			0.80
342	Graphic arts	0.81	0.78	0.92	0.80	0.59
385-90	Miscellaneous	0.60	0.89	0.71	0.46	0.43
355	Rubber and rubber products					0.86
383	Electrical machinery and equipment	0.92				0.73
362	Glass and glass products					0.52

Source: Eglée Iturbe de Blanco, La Productividad en la Industria Fabril Venezolana.

THE EVOLUTION OF INDUSTRIAL POLICY AND STRATEGIES ADOPTED BY THE DEVELOPING COUNTRIES WITH SPECIAL REFERENCE TO SRI LANKA by A.A. Justin Dias*

INTRODUCTION

The end of colonialism presented the world with a coterie of impoverished nations which, having been subjected to decades of subordination, faced the developed countries with defiance; and through sheer inexperience in independent development, sapped their meagre resources which unconsiously steered them to yet another era of economic dependence. These nations which qualified themselves to be commonly dubbed as the Third World by more affluent countries were left with vistas of possible avenues of development, most of which proved to be abandoned trails of exploitation of valuable raw materials tapped throughout the years by their conquerers.

The natural resources of these countries were depleted and in some cases availability was negligible. Lack of experience in management and virtual infiltration of political doctrines among some of these nations proved to be a perfect base for some of the powerful nations to have further exploitation by way of introducing technical guidance at a higher price.

The countries of the Third World stand today virtually dependent on affluent nations' technical aid. Some of these countries have made appreciable head-way by virtue of being guided by national leaders, while yet others are far behind.

In the economics of the Third World countries the basic development avenues of agriculture and industry are of paramount importance as agriculture and industry go hand in hand to build economic independence of any country. The guidelines of development in these two areas are in turn directly dependant on the evolution of policy pertaining to these two vital spheres of activity throughout the years.

An example signifying the evolution of policy pertaining to these two areas of activity and the resultant factors in the growth of a country's economy can be seen in the emergence of Sri Lanka's progress among the nations of the Third World. As this paper deals directly with the evolution of Sri Lanka's industrial policy, a brief resume of the more important stages in the progress of her industry is presented here.

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* Mr. A.A. Justin Dias, Permanent Secretary, Ministry of Industries and Scientific Affairs

EARLY PERIOD OF INDUSTRIALIZATION

Sri Lanka's history pertaining to industry is quite young, although her credentials in agriculture date back to an epoch of over 2,000 years. Throughout the ages though Sri Lanka has had her experience in indigenous industry, although her relative modern experience at industrialization dates back to well within two decades or so prior to her independence. It is a noticeable fact that Sri Lanka initiated her modern industrial history with agro-based production lines. This has been so as her main agricultural products that reached international markets were initiated by her conquerers who spared no pains to develop these areas of production from their agricultural resources.

Hence, evidence of the pioneer attempts at industry in Sri Lanka emerges with the birth of the initial agro-based coffee, tea, rubber and coconut industries in the distant years. Other than these primary manufactures, no systematic or coordinated effort to originate industry in the land had been attempted until the 1930s.

During the later years of this decade, however, with the commencement of the Second World War, a 'rough plan' for the establishment of several factories was evolved, based on certain surveys which had been completed. The plan envisaged that industries should draw on indigenous raw materials and would not involve heavy capital expenditure. On this basis factories for the manufacture of consumer products such as plywood, leather, quinine, ceramics, acetic acid etc., were constructed during the Second World War. They were administered by the development of industries functioning within the Ministry of Commerce and Trade. These factories which offered the first glimpses of diversification of industry from the already existent agro-based counter-parts flourished in their lines of production only to encounter steep marketing problems and ultimate closure on the resumption of imports after the war.

The next attempt at a fixed industrial policy did not materialize until after independence in 1947. Endeavours to attract private investment into industry were made in the early 1950s with certain amendments to tax laws. The income tax amendment Act No. 36 of 1951 exempted the profits of newly established private enterprises from income tax for a period of five years up to a limit of 5% of the capital employed. At this time, two reports referring to industrial development had influenced Government Policy regarding industry to a very high degree. These were the reports on the Economic Development of Ceylon by the International Bank for Reconstruction and Development issued in 1952. These reports attempted to create a favourable atmosphere for private industrial investment.

In the same year a white paper on foreign capital was issued with the intention of attracting foreign capital into industry. This document extended identical concessions to foreign investors as to local industries.

THE ADVENT OF PUBLIC CORPORATIONS

In 1955 the Government introducted the Government Sponsored Corporations Act No. 69 of 1955 by which Statutory Provision was vested in the Ministry of Industries to convert the existing state factories managed by the Industries Department into autonomous institutions to be run by boards appointed by the Minister. There was also provision for the transfer of such industries eventually to private ownership.

In 1957 the Government's policy in respect of industrial development provided for demarcation of industries into three large sectors, namely those reserved for the public sector, those open both for public and private sectors and those left for development solely by the private sector. Further provision was made in the policy to take over malfunctioning private sector industries and place them within the public sector.

The industries reserved for the public sector were iron, steel, cement, chemicals, fertilizer, salt and by-products, mineral sands, sugar, power, alcohol and rayon. In addition to the above measures in the public sector, the Government also extended extensive incentives to the private sector, such as extension of the period for tax exemption and grant of enhanced depreciation allowances awarded on a lump sum basis on new industrial buildings, plant and machinery and protection by way of tariff and controls on importation of goods which were also locally produced.

The reaction to these special concessions was favourable, both in the private and public sector, investments in industry increased and a base for the build-up of a 'mixed' industrial sector began to emerge in the early 1960s.

OTHER DEVELOPING COUNTRIES

It is pertinent at this stage that one glances at development on a wider spectrum embracing all developing countries of the Third World.

During this decade the Governemt of Sri Lanka adopted policies parallel to those which were commonly observed among the developing countries so as to bring about certain criteria:

- to preserve economic stability by means of industry to whatever extent that was possible; and
- to reach the world markets in whatever ways possible.

These governments of the Third World countries initiated their strategies by adopting import substitution to a considerable extent, in order to conserve finances. They also gave high priority to the protection of local industries in order to serve indigenous markets as widely as possible. They initiated systems of administrative and exchange control at all levels.

This left the smaller countries of the Third World in a peculiar situation. They were hard pressed to reach export markets with their manufactured goods as some of their products did not reach international quality levels; and their production costs were high due to the fact that they lacked modern machinery and technology.

At the same time, in the developed nations manufactured goods were of a very high standard and were reaching their own markets on a scale which matched the income levels of the people. Another impediment to Third World products reaching their markets was the selective quota system these countries adopted in order to protect their own industries as well as to prevent imported goods getting a hold on their markets.

In reference to the low income countries, the trends in output and income growth is aptly summarized in the World Development Report 1982 when it states the slow growth of the low income countries is not explained by the fact that fast growing countries no longer belong to this group: although there were marked shifts in relative positions within groups, few countries, have moved from one income group to another over the past three decades.

Among developing countries with relatively low per capita income at the beginning of the period, the majority have achieved only slow growth since then. Most of the rapidly growing developing countries were in the middle income group in the 1950s and had the advantage of a long development history.

According to the World Development Report 1982, the problems faced by the less successful middle income countries - and particularly those still dependent on primary commodity exports and by poor groups in middle income countries - should not be underestimated. Nonetheless, it states that development assistance should be concentrated on the low income countries. The people of these countries have started the decade most vulnerable to failures in growth; but with enough aid to sustain the implementation of national policies they could now begin the transition to a rapid expansion in incomes.

The above statement is amply reflected in Sri Lanka's recent industrial history pertaining to the late 1970s. The progress of development induced by the policies of the governments which ruled Sri Lanka during this decade bring forth a clear picture of the nature of advancement in the progress of the country and also of the aid programmes attracted by the policy makers of the Government.

SRI LANKA'S INDUSTRIAL POLICY AND STRATEGY BETWEEN 1972-1976

During the period 1972-1976 policy objectives were indicated in the general guidelines given by the Planning Ministry which was set out in the Five Year Plan. It envisaged that particular attention should be paid identifying new project proposals for the development and manufacturing sector during the five year period that followed. It was also indicated that as far as possible proposals should be based on the following priority considerations:

- projects based entirely on domestic raw materials;
- projects resulting in substantial employment generation;
- projects reaching production stage in the shortest time period;
- projects for which preliminary investigations have been completed; and
- projects identified for commencement during the Five Year Plan period of 1972-1976 which could not be taken up for lack of resources.

During this period the performance of the private sector was poor. The main cause for this situation was a severe restriction on resources. Foreign exchange allocations were restricted and a drastic quota system was adopted for importation of raw materials.

These conditions caused constant under-utilization of capacity. Factories geared for high production capacity were forced to adopt stringent production programmes. The smaller industrial units bore the brunt of these restrictions and often traded off their meagre quotas of raw material rather than run their factories for exceedingly short periods, thereby negating the very principles of industry.

These stifling conditions created a sense of insecurity among these industrialists, who were also subject to severe surveillance by the authorities, especially by a select high-powered striking force. This resulted in the inevitable erosion of the spirit of free enterprise.

During this period locally produced industrial products were marketed without difficulty even though some of them were below acceptable standards. Consumers were left with no alternative but to purchase essentials. Thus the conditions that prevailed among both the consumer and private sector industrialists left much to be desired.

The Five Year Plan of 1972-1976 had envisaged the development of agro-based industries at a faster rate, with the intention of developing an agricultural raw materials processing sector and thereby to reduce the heavy dependence of the industrial sector on imported raw materials.

However, in the context of high prices obtainable in the market for food products and the special emphasis given to the 'food drive' during these years, the production of agricultural raw materials for industries remained at a low level. There was also no control in authority to coordinate the development of agro-based industries. The inevitable result of both these factors was a major shortfall in this programme although it had been assigned high priority in the plan.

Between 1970 and 1976 government policy tended to regard the public sector as the main instrument of industrial growth. This is illustrated by the fact that capital investment in manufacturing industry for the public sector showed a steady rise from Rupees 645 million (54 million dollars) in 1970 to Rupees 1,445 million (about 97 million dollars) in 1976 showing as average annual increase to be Rupees 133 million. During this period, the public sector corporations became the sources not only for the supply of finished goods but imported raw materials as well. Raw materials were imported by the State Trading Corporation, Building Materials Corporation, Ceylon Steel Corporation, Ceylon Ceramics Corporation and National Paper Corporation for supplies to be effected to the private sector.

Some corporations also maintained controls on the quality and price at which raw materials were imported by the private sector. This trend was extended eventually to the acquisition of certain private sector industries for management by the public sector.

THE PRESENT ERA AMONG THE DEVELOPING COUNTRIES

Considering the developing countries as a group, policies that guided industry during the 1960s and 1970s were designed basically to earn as much foreign exchange as was possible in order to improve the balance-of-payment situation in the respective countries. The steps that were adopted to bring about foreign exchange savings were mainly import substitution and protection of indigenous industries by way of high tariffs on the imports of commodities for trade.

This type of planning affected the smaller countries and the larger nations differently. As industry developed in the smaller countries, development levels tapered off at the stage where they reached saturation of the small indigenous markets and the profits gained by redution of 'per unit cost' halted. Hence, the industries of these countries assumed doubtful viability. However, in the larger countries like India, Indonesia and China these policies persist even today as room for expansion is unlimited and industrial products found numerous indigenous markets.

In the past certain countries, which produced basic raw materials such as rubber, minerals and other primary products, exported these to the developed countries. It has been seen more recently that products manufactured by developed countries out of raw material from the countries of the Third World could be marketed in developing countries as well. Therefore, it was realized by the policy makers of the Third World countries that they should not depend entirely on the availability of raw materials, but that they should also take into consideration the feasibility levels of industry even if they have to import basic raw materials in order to attain industrialization.

SRI LANKA IN THE PRESENT ERA

Since the present Government assumed office in mid-1977, well thought-out policy programmes have moulded a very confident pattern of development of the economy of Sri Lanka. The present Government, after a careful study of the then existing pattern of activity of the industrial sector, set about a major programme of re-organization. A constructive change of outlook and execution of varied activities emanated from the general policy structure originated by the present Government. This policy gave priority to:

- revitalizing the economy by ensuring efficiency within the public sector;
- helping the small and medium-sized investor so that they could make maximum contribution towards the development of the country;
- encouraging and expanding management training facilities;
- adopting strict measures to ensure quality control and cost control;
- adopting measures to protect the interests of local consumers as well as the local industrialists who are manufacturing acceptable quality goods; and
- encouraging export oriented industries.

The Government also encouraged foreign participation in joint enterprises and other entrepreneurial arrangements between local and foreign investors. Legislation was enacted enunciating the terms and conditions of foreign participation, safeguarding both national interest and the interests of foreign investors, making provision for arbitration in case of disputes through appropriate international agencies.

The reforms carried out after November 15, 1977 were directed towards the removal of basic structural anomalies. The institution of a new exchange policy to encourage export, the replacement of the high protective tariff system by a more realistic set of duties, and the freeing of more than 85% of imports from licence control were some of the more significant features of these reforms. They were accompanied by the establishment of a Presidential Tariff Commission which was assigned the task of constantly keeping tariffs under review with a view to harmonising the interests of both producer and consumer.

These reforms opened a new strategy in the history of industrial development in the country. Inefficient industries incurring very high costs of production could not continue to exist. Recurring shortages of foreign exchange for the importation of industrial raw materials, spares and accessories ceased. Industry was made to look outward rather than inward, and to export their products in addition to selling them on the local market. Thus a favourable foundation for the development of the manufacturing sector was created.

Other new changes which were introduced mainly to the working of the public sector included emphasis on improved management and higher productivity through better capacity utilization and competition with little or no Government controls and protection. All expansion programmes are to be effected mainly through commercial financing in order to enforce a source of financial discipline. Government monopolies have been generally discouraged and several public sector industries are open to the inflow of private sector management, expertise and capital. Most imports which had been corporation monopolies have now been liberalized.

Regarding the private sector too, a comprehensive and continuing review was undertaken of the availability and prices of essential commodities and imports have been sanctioned where necessary. With the introduction of new policies and the availability of foreign exchange for import of industrial inputs, as well as the freeing of 85% of the items formerly under licence control and the dismantling of administrative apparatus for foreign exchange licencing, an increase in industrial output was achieved.

The private sector is now free to produce to capacity and to expand and modernize their industries without undue interference from any controls.

Steps were taken to liberalize the approval of new industries and available statistics indicate that there has been an improvement spurt in certain private sector industrial investment. Special regard has been paid to the development of small and medium-scale industries. A comprehensive incentive framework has been devised for the encouragement of such industries.

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INDUSTRIALIZATION IN EGYPT: LESSONS FROM THE RECENT PAST FOR OTHER COMPARABLE DEVELOPING COUNTRIES AND OUTLOOK FOR INDUSTRIAL DEVELOPMENT IN THE 1980s AND 1990s by Ms. Heba Ahmad Handoussa*

Over the past three decades, Egypt has experimented with many variants of an industrial strategy within the context of a basically mixed enterprise setting. Details of its experience are rich in implications for other medium-sized developing countries which share with Egypt the fundamental problem of a growing imbalance in the structure of resources of agricultural land, population and capital.

The first section of this paper gives a brief description of the evolution of Egypt's industrial structure, institutions and policies, with emphasis on developments over the last ten year period. The second part of the paper appraises the effectiveness of the various policy instruments used throughout the period. The third and concluding section draws some lessons from Egypt's record of successes and failures.

A policy of active protection and support for industrialization was first pursued by the government in the 1930s when Egypt first regained its tariff autonomy. Private investments were made in the traditional sectors of food processing, spinning and weaving based on domestic agricultural intermediates. During the Second World War, private enterprise received another booster and began to diversify its investments so as to take advantage of domestic shortages of imported manufactures and to cater for the special needs of the Allied forces stationed in Egypt. The government continued to provide credit facilities and gradually raised protective tariffs throughout the 1940s and 1950s.

The revolution of 1952 gave the state special responsibilities in actively promoting the growth of industry, and a first significant structural change was in fact achieved in the decade of the 1950s, the contribution of industry in GDP rising from 10% to 17%. The policies pursued included government support in institutionalizing project appraisal, in pledging supplementary finance for new projects, in guaranteeing government purchases of new products and in securing effective protection through a schedular tariff system and import licensing. Private enterprise continued to be the spearhead of industrial development throughout the 1950s. Several new import substituting industries were established, including large-scale capital intensive ventures in iron and steel, railway rolling stock, electric cables, paper, fertilizers and rubber tyres. Even those firms in which the government was a major shareholder were set up as fully autonomous private joint-stock companies subject to the same private law as that for other large corporations such as the "Bank Misr" group of enterprises.

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* Dr. H.A. Handoussa, Assistant Professor of Economics at the American University in Cairo.

The political crisis between Egypt and the West (culminating in the nationalization of the Suez Canal and the Suez War of 1956) led to a temporary disruption in trade because of the economic blocade by the West and to a significant reorientation of the market environment within which industry operated. The government seized the assets of British and French interests which were concentrated in Banking with the consequent shrinkage in the role of a hitherto highly developed and sophisticated capital market.

The stock exchange was soon closed and foreign trade activities were gradually monopolized by the state which turned increasingly to bilateral trade relations with countries of the Eastern Bloc which were also providing Egypt with substantial foreign aid. The drift in political orientation away from the West coincided with the introduction of comprehensive planning as a policy tool for managing the economy.

The first Five Year Plan for Industry was announced in 1957, and a Ministry of Industry was established. A long list of industrial projects which had been evaluated by the National Production Council (set up in 1954) was now implemented and supervised by a government holding company - The Economic Organization - to which were also assigned substantial French and British assets sequestrated after the Suez War.

The process of confiscation of foreign holdings in Egypt was soon resumed with the nationalization of all large domestic enterprises in industry, construction, trade and finance. By 1964, the state was in control of the bulk of Egypt's modern industry which was reorganized by a process of merger into some 160 public enterprises supervised by eleven "General Organizations" according to sector of industrial activity. Centralized authority at the level of these organizations and the competent Ministries robbed enterprise management of sufficient autonomy for major and minor decisions on hiring, pricing, investment and finance. In addition, standardized statutory legislation on wage and salary scales and on the allocation of profit - across all public sectors - eliminated the opportunity for firms to respond with flexibility to the dynamics of growth, competition and comparative advantage. The brunt of the responsibility for steering the economy was thrown on to planning and away from the market mechanism.

Between 1960 and 1965, industry attained record rates of growth with average annual rates of 12% and diversification continued with the introduction of new capacities for the production of consumer durables, pharmaceuticals, industrial chemicals and transport equipment as part of the continued strategy of import substitution. But important developments were also made to expand the traditional sectors and enter the export market with the result that the contribution of yarn and textiles to export earnings grew from less than 5% in the mid-fifties to close to 20% in the mid-sixties.

The structure of industry itself was transformed, with the share in industrial value added of consumer goods declining from 80% in 1950 to 55% in 1966, while that of intermediate goods rose from 20% to 38% in the same period (consumer durables and equipment accounted for 7% in 1966).

Egypt's involvement with the war of 1967 and its aftermath (the war of attrition) meant a reduction in real investment expenditure for industry which had hitherto received a generous 25% of rising total investment expenditure in the economy. There was a serious disruption in the production of the war afflicted Suez Canal cities and the sensitivity of overall industrial output to the import of intermediates was painfully displayed as a result of foreign exchange shortages. Output stagnated and even declined in some of the years leading up to 1973. Replacement and maintenance expenditure was totally neglected in existing enterprises and the limited investment resources were directed to a very few plants in basic metals and chemicals. Throughout the 1960s and 1970s the emphasis on heavy industry has continued to be pronounced, and the virtual absence of a capital goods industry has been equally conspicuous.

The decade of the 1970s has witnessed yet another radical shift in Egypt's development strategy, again in line with the reorientation of the political system towards the West. Immediately following the success of the October 1973 War, an era of liberalization was inaugurated which has succeeded in reviving private sector activity in banking, trade, construction and - more cautiously - in industry. The state has at once introduced legislation (Law 43 of 1974) to provide incentives and guarantees for foreign and domestic private investment, it has discontinued all of the bilateral trade agreements which governed foreign trade until the mid-1970s, it has removed exchange controls on virtually all transactions affecting private sector activity, it has effected a series of devaluations of the Egyptian currency, and it has dismantled its centralized system of control over public sector enterprises. The transition to a market economy is far from complete however, and the state continues to intervene in three important areas affecting industrial performance: price policy, employment and wage policy, investment planning and control.

These three areas of control have seriously constrained the activity of both public and private enterprises. The state has on the one hand given extensive freedom for entrepreneurial initiative to respond to market opportunities with the setting up of a small but significant number of joint ventures under Law 43, while on the other hand it has prevented the main tool of a market mechanism - the system of relative prices - from performing its function of reflecting real scarcities in the economy. In its effort to protect the income of final consumers of basic commodities and with the alleged objective of containing inflationary pressures, the government has administered the price of all commodities over which it has control through its own output and distribution monopolies. Nominal prices for a whole range of intermediates utilized or output produced by the public sector have been frozen at their pre-1973 levels, including energy and energy-intensive products, cotton yarn, rationed cloth and processed foods.

The system of price controls is not only complex but increasingly inconsistent, involving implicit taxes on locally produced inputs, tariffs on imported intermediates, production subsidies on commodities sold at a fraction of their international price, together with high tariffs on competing imports. Effective protection has gradually become negative to most domestic producers of basic consumer and intermediate goods as demonstrated by the most recent extensive study undertaken by the Ministry of Industry together with the World Bank. The result of these distortions has resulted in the most startling divergence between financial and economic rates of return for industrial firms, with adverse implications for investment allocation in a system where self-finance has always contributed the largest share in investment expenditure for expansion and renovation of existing enterprises.

In practical terms, the growing gap between the price of imported and that of domestically produced goods has also led to black market activity in the distribution of public sector output such as iron and steel products, cement, glass, a situation which only benefits a small group of middlemen. Fixed selling prices by the public sector for intermediate such as yarn, leather, semi-processed metals involve unnecessary implicit subsidies to private sector enterprises which sell their products at uncontrolled prices. The allocation of new private capital has thus been chanelled - in line with distorted price signals - into areas where tariff protection is highest and output price controls are lowest, areas which are now being criticized as being the 'non-productive sectors'.

Another conspicuous problem arising from state intervention is in the wage structure and availability of skilled labour for industry. Socialist policies of guaranteed employment for masses of college graduates in the civil administration have persisted throughout the 1970s, side by side with the uncontrolled emigration of substantial numbers of skilled workers to neighbouring Arab countries. The repercussion has been a serious tightening of the labour market and rapid increases in real wages going to industrial workers, eroding part of Egypt's essential comparative advantage in an abundant, well-trained, low wage labour force. Private sector firms have responded with the adoption of more capital intensive techniques in the traditional sectors such as clothing, furniture and leather products. Public sector firms have found it extremely difficult to adjust to the exodus of their skilled labour which they were responsible for training over the past twenty years, especially in view of the statutory wage and salary structure which continues to be imposed by the government. This rigid structure gives too low a premium for skilled as opposed to unskilled labour (which is better paid in the public sector), links promotion to seniority alone and has little scope for appropriate compensation of the scarce qualifications of experienced managers and technicians.

The dual wage structure between public and private sector industry is analogous to the dual price structure which also discriminates against the public sector. But what is of more serious concern is the apparent trend of increased scarcity of labour when it is clear that the underlying long-term factor proportions for Egypt are such that excess labour is bound to reappear in the near future, when emigration subsides and when the government's finances become tighter so that it can no longer continue to provide artificial jobs to perhaps one quarter of the total annual new entrants to the labour force.

The government has the hard choice to make between continuing in its policy of creating new jobs costing an additional LE 300 million per year in the government administration or allocating these funds to productive investment in labour intensive industries. Real wages need to rise as a result of increases in real productivity of labour, thus maintaining Egypt's competitive position vis-à-vis other developing countries which are rapidly industrializing, and not in response to exogeneous forces shifting supply and demand conditions in the labour market to the detriment of long run productive growth. The government must also review its educational policy which favours university education - in contrast to vocational training - and perpetuates the imbalance between job seekers and job availability.

The issue of investment planning and control is the third area which the government has not been able to tackle effectively in the context of its liberalized development strategy. Special legislation enacted soon after the Open Door Policy has expressly forbidden any reduction in the state's equity participation in public sector enterprises. Since most of these firms are 100% owned by the government, this has precluded the sale of old or newly issued shares to the public or the participation of existing establishments in joint ventures with foreign multinationals. At a time where budget allocations for expansion and new investments have been limited, and where the possibility for self-finance from profits is gradually disappearing on account price controls, public sector industry has found itself in the difficult position of having to undertake very modest investments relative to the opportunities available for its growth.

At the same time however, it is a government controlled and public sector oriented institution, "the General Organization for Industrialization" which screens both private and public sector projects for economic viability, technical evaluation and coordination purposes. Although this institution does not have definitive power in rejecting private Law 43 proposals for investment projects, it has been effective in discouraging many would-be competitors from the private sector. The result is therefore an overall limitation on actual as opposed to potential investments by private and public sector enterprises - not because of any lack of initiative, dynamism, innovative spirit or the reluctance to take up risk - but simply because of the persistence of bureaucratic elements entrenched in the old system in refusing to accept that growth and development can in fact thrive in an environment of increased competition with more firms, more products, more output and employment, and hopefully, more exports.

In an effort to stimulate supply of savings from the general public and from specialized institutions, the government has gone a long way by taking steps to revive the stock market, it has also issued a new company law for all private non Law 43 joint stock companies which gives them complete freedom from the public sector legislation of compulsory participation of workers in management and profits. The Ministry of Finance has also substantially reduced the corporate income tax for industry in order to give it preferential treatment in contrast to the taxation of income from commerce and trade. Financing of public sector investments which are now evaluated by the newly established National Investment Bank is expected to become a lot more objective, specialized and streamlined than the previous system whereby various Ministries would compete for funds at the cost of serious incompetence, delays and administrative red tape. The Development Industrial Bank has been operating for several years now and channels credit to the private sector, its budget having been expanded significantly with loans from foreign aid donors.

The role of planning industrial growth in the context of Egypt's liberalization strategy has hardly diminished. The state controls an overwhelming proportion of Egypt's resources and of its capacity to borrow internationally, the size of public sector assets in industry still accounts for more than 2/3 of the sector as a whole, and the responsibility for coordinating balanced growth and the provision of huge infrastructural investments all rest with the state. Moreover, it is clear that today's pattern of investment in industry will determine the future capacity of industry to absorb labour (via the choice of particular capital intensities), the future level of prices for industrial output and of wages (via the choice of economically viable and efficient projects) and the capacity for industry to generate sufficient foreign exchange not only to cover its own needs but also those of Egypt's growing food deficit (via export promotion).

One cannot build an industrial strategy without reference to other sectors of the economy. Until quite recently for instance, it was easy to expand industries based on the availability of cheap raw materials like sugar cane, cotton and its by-products, phosphates, hydroelectric power, but supply constraints are now being felt very sharply in several areas and it is not economically feasible to expand their supply without an integrated approach to project evaluation which accounts for opportunity costs and shadow prices. On the output side, it is again essential to realize that projected increases in the domestic market for many traditional products will limit the ability to continue much further in the import substitution direction.

A strategy of accelerated growth of manufacturing is implied by Egypt's most recent Five Year Plan from 1982-1987. Such a strategy can only be achieved through the expansion of manufactured exports. The plan envisages an expansion in the export of cement, fertilizer, phosphates, ready made clothing and artisanal products. Those products are expected to be competitive on the world market on account of utilizing local raw materials including large supplies of natural gas for fertilizer production and cheap labour for clothing and craft products.

In the long-term however, Egypt's potential for exports is far more concentrated in the labour-intensive industries which are traditionally private, small scale, domestic market oriented such as furniture, leather goods and especially clothing. This would seem to be a viable pattern of industrialization following the example of countries like Japan, Brazil, the Republic of Korea and Mexico. As these countries experience rising costs of labour and have gradually shifted to more capital intensive industries it is perhaps most appropriate for Egypt to take advantage of its relatively low wages, highly skilled work force and long experience in these industries to make a significant entry into the free international market.

The role of foreign trade policies is crucial for Egypt to make the desired shift in its industrialization strategy from import substitution to export promotion. The existing pattern of protection, exchange rate policy and direct export controls have all contributed to making exports extremely unattractive to any industrial firm. Protection to domestic producers takes the form of either low-priced inputs which benefit producers for both the domestic and export market or it takes the form of tariffs on inputs which only benefit those producing for the local market, thereby discriminating against exports. It is significant to note that most labour-intensive products with potential for export enjoy very high rates of effective protection in the Egyptian market, whether traditional like leather, clothing and furniture, or modern like electrical apparatus and electronics.

Moreover, the absence of an efficient system of tax rebates makes exports uncompetitive because of very high tariffs on imported intermediates which average 25% of their c.i.f. value. The present drawback system is complicated, time consuming (sometimes taking up to two years) and is based on the separate determination for each applicant of the exact imports actually used in the production for export. This system needs reform whereby standard and automatic rebates would be available on the basis of products (valued in units or value), irrespective of whether raw materials were imported or locally purchased.

Another constraint on exporting is the institutional system of controls over export such that the authorities must not only license the export of any product but also determine its minimum price and inspect every batch before export to ascertain its quality. Such controls need to be abolished especially now that the motive for price control - to prevent capital flight - is no longer relevant since foreign exchange has become freely available in the own exchange market. The present system of export controls makes exporting almost impossible and must be dismantled to make way for an export-promoting system.

Most analysts will also agree that Egypt suffers from an overvalued exchange rate which has been sustained only because of the exogeneous growth in foreign currency receipts from sources that are neither related to the productive capacity of the 'real economy' nor likely to continue for very long. These receipts are from petroleum exports and emigrant remittances, flows which have also contributed to rising wages and other domestic costs to producers at home far above the rate of inflation in countries with which Egypt is trading. Every time the domestic rate of inflation is above the international rate, this implies that the exchange rate should correspondingly be devalued to restore the competitive position of Egyptian exporters. Moreover, the rate of exchange which exporters receive for their exports is lower (at LE 1.15 per dollar) because of the operation of a dual exchange rate system with the official price of the dollar well below the free market rate on the own exchange market. It is therefore essential to either undertake measures to equalize the exchange rates for all transactions or to devise a corrective formula to at least compensate exporters for the existing distortion.

It is now almost ten years since the adoption of the Open Door Policy and policy makers are proud of having undertaken so many of the changes needed in the organizational and institutional environment of the economy to meet the challenge of the 1980s with a clearly defined strategy of rapid growth and development based on the joint efforts of public and private enterprises in the productive sectors of the economy. They recognize that more changes are needed to promote an export oriented strategy and that only industry can hopefully achieve for Egypt the aim of rapid and self sustained expansion. The only real problem which they can perceive but have not yet found the solution for is how to reconcile the objective of growth based on the market mechanism with the aim of preserving social justice and equity gains made in the socialist years of the 1960s.

There is a pressing need to address the issue of price distortions which undermines the entire strategy of liberalization because market prices can only be ignored if the state is either willing to take back the full responsibility for central planning and control or is willing to allow valuable resources to be simply drained away into waste. A more consistent alternative is to correct the system of relative prices so that each economic agent responds efficiently towards market signals and to allow for the equity objective to be served by a system of direct transfers or even rationing to be administered by the treasury. The most important lesson which Egypt's experience can teach us is that production sectors, least of all industry, cannot possibly be expected to fulfil the conflicting goals of being efficient - that is cost conscious and profit oriented - while at the same time serving the purpose of redistributing income by selling goods at a loss and providing jobs on a welfare basis.

Another useful lesson for developing countries is the essential complementarity between a strong public industrial sector engaged in those areas of production where externalities, economies of scale and bargaining position matter and a flexible private sector, both operating on sufficiently equal terms and responding to a carefully monitored environment providing the correct incentives in the light of what are perceived to be the priorities for the economy at every stage of its development. It is thus quite wrong to confuse means and ends by giving precedence to one sector over another in the name of rational economic judgement when it is most commonly the ideological bias which determines the ultimate mix of public and private.

A successful industrial strategy can contribute much to development in terms of providing employment, rising real incomes with productivity growth, surplus funds for the finance of further capital formation and much needed earnings of foreign exchange. For a country like Egypt, industry is the only sector which could fulfil all of these objectives.

INDUSTRIAL PRODUCTION IN THE SUDAN by El Karim Idris*

INTRODUCTION

The Sudan is the tenth largest country in the world and the largest country in Africa, with approximately one million square miles of territory. Its Northern frontier starts in an almost rainless zone on the edge of the Sahara desert. Its Southern frontier is in a tropical zone. Between these limits, the rainfall gradually increases from North to South, and this rainfall pattern has largely determined the way of human life there. The area available for economic utilization (i.e. forests, pastures and agriculture) is about 32.25% of the total area of the Sudan. Out of the 200 million feddans[1/] of cultivable land, only 17 million (8.5%) are now under cultivation.

The total population is about 17,380,000 according to 1979 estimates. The density of population is rather low, but the distribution of population is quite uneven, due to the fact that a large part of the country is not favourable for human settlement. The annual demographic growth is around 2.5%. It is worth noticing that the work force in 1977 was around 5 millions, 68.5% of this figure being engaged in agriculture, fishing and forestry, 4.5% in industry and mining, 10.4% in the services and 5% in trade and finance.

General aspects of the economy

The main feature of the Sudan economy is the predominant role of agriculture in the total economic activities, and the heavy dependence on cotton as a cash crop.

Organization system

The existing organization system which controls the whole industrial sector - public and private - is the Ministry of Industry on the top of the pyramid and other assisting bodies. These assisting bodies are to provide the sector with technical, financial and training facilities.

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* Mr. Awad El Karim Idris, Assistant to the Minister of Industry, Ministry of Industry, Sudan.

[1/] A feddan is an Egyptian measure of land equal to rather more than one English acre.

Previously, there was a department of Industry within the Ministry of Commerce and Supply. In 1965, the Ministry of Industry has come into existence after the general consent that the industrial sector has grown in importance and size to a point which necessitated the creation of a separate Ministry for Industry.

The main functions of the Ministry of Industry could be summarized as follows:

- proper planning of the industrial sector, utilizing available potentialities and capacities with the intention of participating fully in the promotion of the national economy;

- proper supervision on existing productive units to ensure the availability of inputs and utilities; and

- supervision of quality control on products of productive units and estimating their cost of production.

A number of Investment Acts have been issued with the intention of encouraging and attracting potential investors, either local or foreign to participate in the execution of the industrial plans. The first of those Acts was the Approved Enterprises Act of 1956. According to the Act, an advisory committee was formed with the aim of evaluating projects offered by both the public and private sectors. The committee passed its recommendations to the Minister to take the final decision of approving and giving concessions to the enterprise or rejecting it. The licence and concessions were granted when the following requirements were satisfied:

- execution of the project is of public interest;

- there is some reasonable probability that its development would be a success;

- its sphere of activity in Sudan has not yet reached the level of sufficiency; and

- availability of sufficient capital and efficient administration to meet the various proposed activities.

For approved enterprises the Act exempts them from Business Profit Tax. This varies with the size of capital invested. The enterprise is exempted from this tax up to 5% for two years if the employed capital is less than 20,000 Sudanese pounds, and for three years if the capital invested is less than 100,000 Sudanese pounds. Over 100,000 Sudanese pounds capital, the exemption period is five years. As to profits that exceed 5%, the excess will be taxed by half the applicable rates if the provisions of this Act are not valid.

The Act provides that no discrimination between national and foreign enterprises should take plac . In the event of nationalization of any foreign enterprise, a just compensation which is transferable outside Sudan is to be paid to the investor. This Act played an important role in attracting local and foreign capital to the field of industry and quite a number of basic industries have been established.

After the establishment of the Ministry of Industry and Mining, whose main concern is to plan and carry out the country's policy for industrialization, the Government decided to issue the Organization and Promotion of Investment Act for 1967. Its objective is to offer more concessions and to remove all handicaps that stand in the investor's way. This Act was followed by the regulations of the organization and promotion of industrial investment for 1968. These regulations specified in detail the procedures for appeals and cancellations of licence. They also dealt with specifications for product prices, organization of production and employment in the enterprise and procedure for submitting applications for import licences, visas for expatriates, transfer of their savings to their home countries and business trips abroad.

In 1974 some amendments to the Development and Promotion of Industrial Investment Act 1972 took place as regards to increase in granted concessions. Those concessions are as follows:

- business profit tax exemption for a period of five years, as from the start of production;
- business profit tax exemption for another five years, if the total amount of profits do not exceed 10% of enterprise capital and any increase - in profit - beyond that limit will be subject to the established rates of taxation; and
- business profit tax exemption for an additional five years for the enterprise which increased their capital in the first ten years, and exemption from profit tax to be of the same percentage by which the capital was increased in that period. If the rates of profit in this case are less than 10% of the whole capital after the increase, the exemption in this case shall be total.

This is in addition to the restriction of Government purchases to local product. This was granted total protection, provided that competition shall be local; and international tendering is prohibited.

As regards an industrial product which enjoys partial protection, it is possible that international tendering can be made for that part which is not available locally.

The Government's sole objective in issuing these acts and declaring its policy in this field, is to make available all facilities and guarantees possible for local and foreign capital to find an atomosphere conducive to industrial investment, which secures it a profitable return and encourages it to make an effective contribution to the economic development of the country.

In 1980, the Development and Promotion of Industrial Investment Act of 1974 was embodied in the encouragement of Investment Act, 1980. This was mainly done to centralize and coordinate investment in all sectors of the economy, regardless of whether it is initiated by private or public investors. This latest Act is under the authority of the Minister of Finance and Economic Planning.

Production units

The state owns many production units which constitute a very important industrial sector with a sizeable contribution to the whole economy of the Sudan. This public industrial sector has grown through the years to its present size. Thus, its organization system has gone through many changes since its establishment. These changes were governed, of course, by the size of the sector, the problems developed and the experience gained. The changes were intended to solve the problems and bottlenecks experienced and also to facilitate the nourishment and growth of the sector. The result of this process led to decentralization of authority to give much more freedom to the production units themselves rather than be controlled by the different corporations which until recently were responsible for the administration of those units.

Technical services: Industrial Research and Consultancy Institute

The objectives of the Institute are to assist in and promote the development of industry and the advancement of science and technology in Sudan by conducting and rendering research and technical services for the benefit of the Government or any department or agency thereof, for any public or private institution or financial body or for industry which is or shall be established in the Sudan. Services available by the Institute can be categorized by new and existing projects.

For new projects:

- the Institute undertakes economic and technical evaluation of projects, (pre-investment and feasibility studies). It evaluates offers submitted to the Government with the intention of establishing an industry.

For existing industries the Institute undertakes:

- production trouble shooting;
- production planning and control;
- process engineering;
- quality and cost control;
- purchasing and stock control;
- marketing research;
- training of plant personnel in operation and quality control;
- budgeting and financial control; and
- evaluation of existing plant.

The Institute performs tests, research investigations, analysis and investigates scientific and technical facts. It also assists in the preparation of standards and specifications and performs tests on raw material and finished products. Shambat Food Research Centre also carries out some of these functions in its own field of food and food products. In addition, there are various private Consultancy Houses in the Sudan dealing with consultation in the industrial field.

In the field of financing services, the Industrial Bank was established in 1962 as the main source of financing Sudanese industries and in particular the private sector. At the time the scarcity of financing sources for industry in the Sudan necessitated the establishment of this specialized bank. This bank lends up to one-third of the project cost with a preset ceiling.

An additional institution, the Sudan Development Corporation, was established in 1974 as an independant corporation to work as an advisor, promoter and partner. In virtue of its status, its foreign exchange availabilities and the quality of its management, it plays a central role in the commercial life of the country. This role extends from identification of projects to their final implementation via the intermediate stages of feasibility studies, official approval licence, contracting and mobilization of human and financial resources, whether local or foreign.

The Sudanese banking system was nationalized by an Act passed in 1970 and following the new thrust given to economic policy in 1972, has been considerably diversified. While commercial banks are still state-owned, they have been encouraged to expand their activities. Moreover, since 1974 the Government has authorized Western and Arab Banks to establish operation in Sudan under certain conditions. All these banks participate in financing industries.

Formal education in the Sudan has expanded tremendously since independence when illiteracy was 98%. The need for the qualified manpower to carry out the ambitious development plan was realized, however, and education in all its levels was expanded with especial emphasis on technical training. Two universities were established beside the existing two. The new universities emphasize more the technical and practical aspects in their training programme. This is to contribute to the qualified technical manpower needed for the development programme of the country. Also Khartoum Polytechnical Institute has expanded to graduate technicians covering various specializations. Various vocational training centres were established in different parts of the country. Also for managers the Khartoum Management and Development Centre offers management courses to all levels of responsibilities. The Industrial Research and Consultancy Institute also contributes in the training of engineers and technicians who work for industry. The Government of the Sudan offers scholarships for further training abroad.

The Textile Industry

Sudan is a major cotton growing country and thus has a relative advantage in the field of textile industry. Until recently this industry was solely in private hands. In 1972 the Government drew up a 15 year plan for development of cotton textiles in three phases, with the first phase aiming at satisfying the local demand for popular fabrics. The second phase in the plan aims at producing yarn for export while the last phase objective is the production of popular fabrics for export purposes.

The total investment in the spinning and weaving sector has reached about 1 billion dollars with a designed capacity of 345 million meters per annum. Efforts made in the spinning sector have resulted in a good number of factories with a total designed capacity of 26.8 thousand metric tonnes per annum. Work has also started to add another 20 thousand tonnes per annum. The share of the public sector in the textile industry amounts to an investment of 152 million Sudanese pounds which includes:

- Friendship Factory has an estimated cost of US $ 11.5 million and a designed capacity of 16 million meters of popular fabrics annually;

- six weaving sheds are located in different parts of the country with a total cost of 29 million Sudanese pounds and an annual capacity of 40 million meters;

- Abu Nana Kenaf Factory, which cost 17 million Sudanese pounds, produces 10 million kenaf sacks annually;

- The Port Sudan Spinning Factory is still in the implementation phase. It is designed to produce 5.3 thousand tonnes of fine yarn for export and its total investment is about 23 million Sudanese pounds;

- Hag Abdalla Spinning Factory, which is under completion, aims at producing 7.7 thousand tonnes of coarse yarn to meet the local demand for all the factories within the country. It is estimated to cost 17 million Sudanese pounds. It is also designed to produce 2.5 thousand metric tonnes of fine yarn for export purposes;

- The Gado Textile Factory has faced lots of problems which have hindered its completion. The main problem was that the civil works were considerably delayed and the implementation programme went out of control;

- The Khartoum North Spinning Factory is also facing some difficulties which are hindering its implementation, and

- The Tonj Kenaf Factory is still facing implementation problems since some of its machinery was damaged during transportation.

It is worth mentioning that, despite all these efforts, due to technical, financial and scarcity of trained personnel, 1980 production figures stood at 77 million meters of fabrics produced by the public and private sectors (i.e. about 20% of designed capacity).

The private sector contributed much in the field of spinning and weaving industry, where its investment reached to about 250 million Sudanese pounds. In 1970 the production capacity of the private sector factories amounted to 90 million meters of cloth increased not to 296 million meters. Three of the spinning factories have already entered the sphere of export of yarn and a third one is expected to produce yarn for export during this year.

Table 1.

Type of production	Unit	1976/1977	1977/1978	1978/1979	1979/1980
Damouria	thousand meter	2,987.5	3,533.7	3,641.2	3,305.6
Poplin	"	754.3	770.7	376.2	507.8
Dabalan	"	586.0	757.6	990.0	445.0
Voil	"	800.3	1,241.2	928.0	651.2
Others	"	70.8	128.3	10.7	-
TOTAL	"	5,198.9	6,431.5	5,946.1	4,909.6

Source: Spinning and Weaving Corporation.

Table 2.

Factory	Unit	1978/1979	1979/1980
Kosti Weaving Factory	Thousand meters	2,476.4	2,031.0
Shendi Weaving Factory	"	2,114.5	1,712.4
El Dueim Weaving Factory	"	560.6	675.3
Nyala Weaving Factory	"	-	644.9
Kadogli Weaving Factory	"	-	465.9
Mangala Weaving Factory	"	-	108.5
TOTAL PRODUCTION	"	5,151.4	5,638.0

The Sugar industry

The sugar industry started in Sudan in 1962 when the Guneid Sugar Factory came into production. It is now picking up momentum at an appreaciable pace, and it is possible that sugar could overtake cotton as Sudan's main export. Sudan possesses a relative advantage in this industry since it is blessed with vast cultivable land suitable for cane sugar plantation.

Sudan has at present five sugar factories - Guneid, New Halfa, Sennar, Kenana and Assalaya, with a total installed capacity of 690,000 tonnes a year, which is more than the country's annual consumption which reaches 450,000 tonnes. But due to technical, financial and infrastructural shortcomings the present production level is 280,000 tonnes. Two more factories, Melut and Mangalla, are under implementation. Studies are underway for two other factories in Renk-Gelhak and Seteit.

The Kenana Sugar Factory is the most important single factory in the sugar industry. Initial work was started in 1971 and it started production in 1979. It is a joint venture between the Sudan Government, the Sudan Development Corporation, Kuwait, Saudi Arabia and other Western companies. The total investment is about 600 million dollars, and its designed capacity is 360,000 tonnes - which could be increased to one million tonnes in the future.

The Sennar Sugar Factory is situated on the Western Bank of the Blue Nile, about 300 km South-East of Khartoum. The farm area is about 33,000 feddans. Work began on the project in April 1974 and was completed in October 1976. The project cost was estimated at 76 million dollars. The factory is designed to produce 110,000 tonnes of sugar annually. It employs 5,000 workers seasonally increasing to 20,000. The Kuwait Fund and U.K. sources have helped in financing.

The Hagar Assalaya Sugar Factory is similar in design to Sennar Sugar Factory, with a designed capacity of 110,000 tonnes annually. While the old factories Guneid and Kashm-ElGirba represent another family of 60,000 tonnes designed capacity each. Table 3 illustrates the sugar factories total production against the country's annual consumption for the period 1975/1976 - 1980/1981.

Table 3. Total production and consumption of sugar during the period 1975/1976 - 1980/1981

(in metric tonnes)

	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81*
Guneid	54155	55074	48336	36539	29693	40000
New Halfa	59794	57168	58214	64849	43653	52000
Sennar	-	26465	31659	18177	30001	35000
Kenana	-	-	-	-	19461	150000
Assalaya	-	-	-	-	7628	7000
Total prod.	113949	138707	138209	119565	129842	372902
Local consumption	274149	295915	314981	330678	372902	400000
Percentage	42	47	34	36	35	71

Source: Public Corporation for Sugar Trade

Note: * estimates

The other food industries sector is rapidly developing and expanding to meet the local demand and then exporting the surplus of Sudan's processed agricultural products from fruits, vegetables and oil seeds.

In fruits and vegetables, there are five main public sector and two private sector canning factories in the Sudan producing a variety of food products, i.e. tomato paste, different types of fruits, dates, onions and ready meals.

Table 4. Production of public sector canning factories for the period 1975/1976 - 1979/1980

Factory	Unit	1975/76	1976/77	1977/78	1978/79	1979/80
Karima Canning	thousand tins	15202	10773	10277	7245	9391
Karima Dates	metric tonnes	125	145	111	23	70
Kau Canning	thousand tins	2876	1262	886	-	-
Kasala Onion	metric tonnes	329	444	353	418	265

The private sector investment in the edible oils field represents 95% of the total investment. The crushing capacity of the oil mills increased from 750,000 tonnes in 1970 to 5 million tonnes in 1980. The private sector has been able to establish two solvent extraction units for edible oil which is directed for export.

The private sector has the leading role in the production of laundry and toilet soap.

In the field of production of flour the private sector was able to establish many production units spread all over the country. The production capacity of the flour mills raised from 170,000 tonnes in 1969 to reach

450,000 tonnes in 1980. In order to meet the ever increasing demand for flour, licences for the establishment of new flour mills by the private sector together with extensions in the already existing units have been issued to raise the capacity to one million tonnes.

Tanneries and leather industry

Sudan has a sizeable animal wealth namely, cattle, sheep, camels and wild life animals. It has established three tanneries to process cattle and sheep skins.

Khartoum Tannery is designed to process 150 thousand hides (cow) and 450 thousand sheepskins annually. It was built at a total cost of one million Sudanese pounds. White Nile Tannery is designed to produce 250 thousand hides (cows) and 450 thousand sheepskins annually. The total cost was 1.3 million Sudanese pounds. Wad Medani Tannery is the newest tannery built in collaboration with a French company to process 300 thousand hides (cow) and 750 thousand sheepskins annually. The total investment reached 2.8 million Sudanese pounds.

Tables 5 - 7 show the production of the three tanneries.

Table 5. Khartoum Tannery production
during the period 1975/1976 - 1979/1980

Type of product	Unit	1975/76	1976/77	1977/78	1978/79	1979/80
Upper leather	000's Sq.ft	1,648.0	1,875.1	1,298.7	1,700.0	1,365.5
Sole leather	" kilos	36.3	105.0	111.6	62.0	70.8
Pickled skins	" pieces	83.3	105.3	83.1	13.0	104.2
Semi finished Skins	" Sq.ft	-	-	-	-	379.2
Suede skins	" pieces	71.1	154.5	81.2	38.2	27.3
Reptile	" pieces	6.8	6.9	5.3	7.9	3.9

Source: Khartoum Tannery.

Table 6. White Nile Tannery production during the period 1975/1976 - 1979/1980

Type of product	Unit	1975/76	1976/77	1977/78	1978/79	1979/80
Upper leather	000's Sq.ft	1,280.9	2,259.8	929.0	850.0	813.7
Sole leather	" kilos	100.5	73.7	37.9	20.0	16.0
Semi finished Skins	" Sq.ft	155.4	125.8	131.8	41.5	251.6
Pickled skins	" pieces	93.8	49.7	52.4	36.7	85.6

Table 7. Gezira Tannery production during the period 1977/1978 - 1979/1980

Type of product	Unit	1977/78	1978/79	1979/80
Upper leather	000's Sq.ft	630.0	950.0	901.4
Semi finished and suede	000's pieces	120.0	140.0	133.8
Chrome and Crust leather	000's Sq.ft	1,190.0	1,800.0	1,398.9

At present Sudan has two cement factories, Alaspio Factory built near Atbara town and Rabak Factory (White Nile Province). Atbara Cement Factory is the oldest factory, over 30 years of age, yet it can produce up to 75% of its designed capacity. A new expansion of Atbara Cement Factory is underway to raise the capacity from 220 thousand tonnes to 450 thousand tonnes annually at an extra investment of about 21.8 million Sudanese pounds. Rabak Cement Factory is also under a rehabilitation programme to raise its capacity from 50 thousand tonnes to 100 thousand tonnes per annum.

A new cement factory in Durdaib (Red Sea Province) is underway with a capacity of 500,000 tonnes per annum, 60% of its production intended for export. At the same time, brick production is still confined to the traditional artisan kilns. Studies are initiated to set up twenty medium-scale brick factories of 10 million bricks per year capacity to meet the local demand.

The production of cement by the two factories for the last five years is illustrated in Table 8.

Table 8. Production of cement during the period 1975/1976 - 1979/1980

(thousand metric tonnes)

Factory	1975/76	1976/77	1977/78	1978/79	1979/80
Atbara Cement Factory	130.0	140.0	85.8	132.3	103.3
Rabak Cement Factory	37.0	37.0	55.7	52.7	43.0
TOTAL	167.0	177.0	141.5	185.0	173.3

In the engineering and electrical industries there are three local factories manufacturing refrigerators, air coolers, air conditioners, water coolers, all three being private sector industries. These factories are able to satisfy the local demand especially for refrigerators, air coolers and water coolers. The only two existing factories for production of liquid batteries, which are private, are covering the local demand. The local demand for dry cell batteries is met by the production of a local private factory.

The contribution of the private sector in industry covers many other fields of activity. A big factory for the manufacturing of tyres and tubes with an investment of 68 million dollars was established with the aim to cover the local needs and to export the surplus. A factory for the production of yeast from molasses was recently established. The private investment in industry covers the fields of leather and plastic shoes, ready made clothes, knitwear, blankets, plastic products, household utensils, packaging materials, perfumes and cosmetics, drugs, metal and wood furniture, etc.

It can be concluded that the different investment acts played a significant role in encouraging and attracting both local and foreign capital to invest in industry by granting industrial enterprises every possible assistance and concessions needed.

Table 9. Industrial production during the period 1975/1976 - 1979/1980

Commodity	Unit	1975/76	1976/77	1977/78	1978/79	1979/80
Cement	thousand metric tonnes	167.0	177.0	141.5	185.0	173.3
Flour	"	237.3	266.8	275.0	269.7	243.3
Sugar	"	113.9	138.7	138.2	119.6	129.8
Toilet Soap	"	3.0	2.6	2.6	2.5	3.1
Laundry Soap	"	40.1	48.1	46.1	43.2	52.0
Cigarettes	" kilos	894.9	728.1	819.5	1115.0	1065.1
Shoes	million pairs	14.4	12.4	13.6	13.6	9.6
Vegetable Oils	thousand metric tonnes	78.1	70.1	73.4	72.8	82.5
Textiles	million yards	117.7	102.2	87.5	92.0	102.0

Source: Customs Department and Industrial Production Corporation.

Sudan industry is marked to play a major role as exporter of food industries and textile products after satisfying the local demand. This could be achieved when the present problems jeopardising the production and hindering the optimum utilization of factories capacities are solved. It is estimated that industry is running at only 30% of capacity. Shortage in imported inputs, obsolete and inefficient machinery, transportation and communications problems, electric power failures and high labour turnover are the main problems behind the under-utilization of capacity in most factories.

INDUSTRIAL DEVELOPMENT STRATEGIES AND POLICIES OF THE KINGDOM OF SAUDI ARABIA

by Abdulaziz A. Khathlan*

INTRODUCTION

The present industrial development strategies and policies evolved as an important element in the overall economic strategy of the Kingdom for the diversification and restructuring of the economy, so as to reduce dependence on the production of crude oil as the primary source of national income.

Since the late 1960s the Kingdom of Saudi Arabia, through a comprehensive system of development planning and effective implementation of the planned strategies and policies, has endeavoured to speed up the process of societal growth, to raise the living standards and to promote equity and human welfare. The implementation of the development programmes during this period has significantly strengthened the country's economy, diversified its productive potential, and accelerated development of human resources.

Large public investment programmes have vastly expanded the physical infrastructure of transport, communications, power, irrigation, etc. The output of agriculture and industry has registered a reasonable increase. Wider education and health services have been provided, a variety of measures have been taken to protect the more vulnerable sectors of the society from the adverse effects of the rapid process of change.

Therefore, the policies and strategies designed for the development of the industrial sector have to be viewed as an integral part of this continuing and consistent framework of strategies and policy measures initiated during the first plan period 1970-1975, and further reinforced and elaborated from 1975 onwards, designed primarily to diversify the economic base by expanding the agricultural, industrial and service sectors.

The restructuring and diversification of the economy - to be attained by the growth of the non-oil sectors relative to the oil sectors through such broad diversification strategies - is to result in, according to the projections in the Third Development Plan (1980-1985), an increase in the relative contribution of the non-oil sectors to GDP from 38% in 1979/1980 to 44% in 1984/1985, and a corresponding reduction in contribution of the oil sector from 62% to 56%, during the same period.

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* Mr. Abdulaziz A. Khathlan, Vice President, Economic and Industrial Consultancy Service Department, Saudi Consulting House, Saudi Arabia.

The industrial sector is expected to play a major role in restructuring the economy. Specifically, by developing the industrial sector, Saudi Arabia wishes to achieve the following major objectives:

- decrease dependence on oil income;
- increase contribution of the industrial sector to the growth of GDP;
- substitute some imports;
- produce commodities that better suit local as well as regional needs and tastes;
- provide employment opportunities; and
- achieve balanced social and regional development through implementation of industrial programmes.

To achieve these objectives the industrial strategy of Saudi Arabia has been formulated to consist of a judicious mix of the following components:

- first, industries that expand the export base are to be sponsored by the Government or encouraged to be implemented by the private sector;
- second, industries that substitute imports by utilizing local raw materials or which have some cost advantages or which will generate external economies are to be encouraged; and
- third, other industries which will provide the forward and backward linkages required for the economy should also be encouraged.

These are discussed in greater details in the following paragraphs.

DISTINGUISHING FEATURES OF THE SAUDI ARABIAN ECONOMY AND RELATED INDUSTRIAL STRATEGY

It is necessary to identify several distinguishing features in the Saudi Arabian economy in relation to those of most other developing countries to understand the background and the rationale for the Kingdom's industrial strategy. These features demonstrate that there are major differences as well as similarities between the Saudi Arabian economy and most other developing countries which are frequently overlooked.

First, it is useful to look at the differences between Saudi Arabia and the majority of other developing and newly industrializing countries. Possibly the most outstanding contrast is that Saudi Arabia has not been constrained by a shortage of capital and foreign exchange since the first few years of the 1970s. This means that the strategy of industrialization is not influenced by the needs to earn foreign exchange and to conserve on foreign expenditures. Saudi Arabia is not caught in the trap of having insufficient foreign currency necessary to buy vital materials to sustain the very industries which earn the foreign currency and is not dependent on foreign aid for capital investment. Hence the Kingdom is in the very fortunate position of being able to plan for long-term industrial strength, without excessive concern for short-term remedial needs.

The second major contrast is that Saudi Arabia is sparsely populated and has no unemployment - instead there is a shortage of manpower which requires the import of very large numbers of expatriate workers. This has provided employment to workers from many less developed (and industrial) countries whose remittances have augmented their foreign exchange earnings. Thus Saudi Arabia has had a significant indirect role in the development of other countries.

A third feature is that Saudi Arabia has not inherited any strong industrial and trading links based on colonial relations with any single industrial country. This means that there has not been a predetermined industrial system, and the Kindom has developed its own commercial laws, practices, standards and specifications, and institutions.

Fourth, the country has managed to raise all sections of the population above the poverty level. The per capita income rose substantially within a short period and closely approached the per capita incomes of the developed countries. The availability of capital permitted social development programmes to be successfully completed without diverting resources from the industrial, agricultural and urban development programmes.

Despite these contrasts with other less developed countries and despite these features which are the very opposite of the conventional model of a less developed country, it can be argued that the basic underlying structure of the Saudi Arabian economy is that of a developing country.

First and foremost, it is still a traditional one-commodity (oil) economy, which is still subject to external fluctuations of demand and price despite the achievements of OPEC in gaining a more stable market for this commodity.

Secondly, the economic structure is still very unbalanced, with the oil sector constituting over 62% of the total GDP. The balance, 38% constitutes the non-oil GDP. Its composition is also skewed. In 1980, the service sectors account for 57%, construction 34% and the productive sectors of industry, agriculture, mining and utilities only 9%. The economy is by no means self-sustaining, and the short and medium-term priorities of development may further accentuate the imbalances.

Thirdly, there is a shortage of skilled national manpower. Temporary dependence on foreign professional, technical, semi-skilled and manual workers is likely to continue for some time until national skill formation programmes are fully implemented.

Fourthly, although poverty is no longer a major worry, there is still some lack of educational, health and welfare services. The levels of literacy and education, the standards of health and of health care are insufficient and lower than those of some industrial countries.

Fifthly, in addition to oil and gas, there are numerous other natural resources with great potential which are currently unexploited. Saudi Arabia is rich in minerals and fishery resources. Additional resources in the form of livestock and crops are likely to be available from agriculture. Serious efforts are required to exploit these resources.

Performance of the Industrial Sector

In a review of the development of the non-oil manufacturing sector, it is seen that prior to 1970 this sector was insignificant. Substantial development of the non-oil manufacturing sector took place as a result of the strategies and policy measures introduced during the First and Second Development Plan periods. The main focus of the development efforts during the first plan period 1970-1975 (in the light of stringent financial constraints during that time) was the development of human resources through extensive investments in education and training, and infrastructure development.

During the second plan period 1975-1980 (under conditions of financial independence provided by increased oil revenues) the main focus was heavy investments for developing the physical infrastructure and raising the absorptive capacity of the economy. Substantial development and growth of the manufacturing sector also took place during these periods after introduction of the current strategies and policies. It was also during this period that the initial steps were taken for the establishment of the hydrocarbon-based industries, a medium and long-term strategy to maximise the conservation of these resources and to promote energy intensive industries with higher export values which is to be the main thrust of the industrial development strategies of the 1980s.

A brief reference to the performance of the industrial sector (other than oil refining) up to 1980 shows that though industrial manufacturing represents only 5% of the non-oil economy component of the GDP in 1979-1980, the total value of its output has increased from SR 3,303 million in 1974-1975 to SR 6,753 million in 1979-1980 (in terms of 1979-1980 prices).[1] This represents an annual growth rate of 15.4% compared to a targeted rate of 14% for this period. This rate has also exceeded the annual growth rate of 15.1% of the total non-oil economy and 8% of the entire economy for this period.

The main elements of the industrial strategies and policies

The broad strategy consists of two main elements, namely the development of:

- hydrocarbon-based and basic heavy industries; and
- non-hydrocarbon-based manufacturing.

The development of the hydrocarbon-based industries takes priority for numerous reasons. Firstly, it increases significantly the value-added resulting from more effective utilization of the Saudi Arabian crude oil and natural gas resources. Secondly, it takes advantage of the availability of the low cost energy and low cost feedstock for these industries.

The hydrocarbon-based industries are developed on two policy approaches. First, the primary industries, for the manufacture of primary petrochemical products and the basic heavy industries, are to be undertaken by the public sector in view of their close connection with the oil sector and therefore being of critical importance to the Kingdom. These industries have large capital requirements, long gestation periods and occupy central roles in the rest of the industrialization programme. A wholly owned public sector organization, the Saudi Basic Industries Corporation (SABIC) is implementing this programme in close coordination with, two other public sector organizations: the General Organization for Petroleum and Minerals (Petromin) is responsible for gathering, treating and distributing the associated gas used as feedstock and energy and the Royal Commission for Jubail and Yanbu, responsible for building the physical infrastructure at Jubail and Yanbu, the two sites selected to locate the primary industries. These three organizations cooperate with each other very closely.

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[1] SR 3.444 = US $ 1.00

The secondary petrochemical downstream industries that are to employ the output of these primary industries for the manufacture of a whole range of chemical based consumer products, are to be undertaken mainly by the private sector and in few cases jointly with SABIC.

In view of the fact that a proportion of the products of the primary industries, and also of some secondary industries are earmarked for international markets, the policy approach was for the primary industries to be established as joint ventures with leading international corporations. This policy was designed to obtain the most up-to-date technology for these major industries and also as an effective means for penetrating international markets for these products through joint efforts with such foreign partners.

The strategy for the development of the non-hydrocarbon-based industries has been to implement it exclusively through the private sector by provision of a range of attractive incentives. This strategy fitted well with the Kingdom's overall committment to an economic system where a substantial part of the production and services are left to the private sector, and wherein market demand and financial viability were to be the main criteria for the successful establishment and operation of these industries.

In view of the need to encourage these industries to be competitive, viable and to be able to obtain the most up-to-date technology the policy orientation was for provision of incentives and subsidies instead of protective tariff barriers. These incentives include financial assistance on concessionary terms for capital costs, well developed land with infrastructure at very nominal rent, low cost services and utilities, and generous tax exemptions.

The substantial import substitution potential in the economy no doubt justifies such a strategy. Such a strategy also ensures that in view of the liberal import policy of the country only viable industries which are able to compete with imported products would be able to survive. In addition, it would also enable the industries to develop capability for competing in international markets.

Another important policy measure has been the encouragement given for foreign participation with technical know-how, either to form joint ventures with limited equity participation, or to have other collaborative arrangements. This was to expand the technological base required for a concerted industrialization programme, since it was more advantageous to acquire available and developed technology on commercial terms, if the country could afford it, rather than through the elaborate process of developing it locally. Secondly, since most of the industries have to be capital intensive rather than labour intensive (due to manpower shortages) joint ventures with foreign investors from developed countries would have ready access to such technology.

The rationale and implications for the current industrial strategy

It is a fundamental principle of Saudi Arabian industrial strategy that all projects should be economically and financially viable, and be based on the comparative advantages of the country's natural resources and market demands. Hence industrialzation will concentrate very largely on hydrocarbon and downstream petrochemicals industries, and on processing of minerals. In addition, there will naturally be great scope for local entrepreneurs to establish factories to produce certain consumer goods to satisfy local demand, when such goods can be produced at competitive prices and quality. Such factories will produce consumer goods such as household durables and similar products for which high transport costs have to be paid during importation.

Finally, Saudi Arabia has no choice other than to industrialize. The Kingdom's oil resources are exhaustible and evolving energy technology will alter the market for oil. Hence dependence on this single mainstay of the economy and of the present capital surplus will have to come to an end at some time in the future. Hence there is no alternative than to process the national resources within the country, to manufacture goods derived from these resources, and to retain the value-added potential of the Kingdom's resources.

The programme for implementation of the strategy discussed above may have the following major policy components:

- rapid development of the raw material base within the country. For Saudi Arabia, it implies for example, raw materials from hydrocarbon sources and their by-products, minerals, fish and poultry, crops, etc;
- develop the agricultural sector at a rapid pace by developing capital intensive technologies so that the agricultural sector is able to release some manpower for the industrial sector in addition to supplying, increasingly, the basic needs of the people and raw materials for the industrial sector;
- reliance on market forces in a planned environment to allow free play to private initiatives;
- improve minimum import controls or tariff barriers or price controls to allow foreign products to compete with local products with a view to raising efficiency of local industries;
- continue the present system of incentives and subsidies as well as other measures for encouraging new investments and optimize production capacity of existing plants;
- allow maximum foreign investment in desirable fields;

- accelerate national skill creation;
- create, strengthen and maintain suitable financial, technological, institutional and physical infrastructure facilities;
- encourage greater investments in intermediate and capital goods industries. Engineering industries may be specially considered at the present stage of development; and
- adopt and implement other policy measures as and when required.

Emerging issues, strategies and policies for the 1980s

When viewing the emerging issues, strategies and policies for the 1980s, it is apparent that most of the main issues are continuities from previous decades.

From the perspective of the Saudi Arabian industrial strategy, the major issue will always be to attain and maintain efficient production methods, management and technology to ensure the highest standards of industrial efficiency. These will be achieved through extensive educational and training programmes, joint ventures with qualified foreign companies, and manpower development to give early responsibilities to citizens, so as to build up a cadre of managers and a skilled labour force fully capable of running the nation's industries in the medium and long-term. Manpower development is a constant factor which does not alter with changes in the world economic situations.

Furthermore, the penetration of world markets by Saudi Arabian manufactured and semi-manufactured petrochemical products will continue to be a cardinal issue which is, in structural terms, similar to the penetration of the rich markets of the world by processed agricultural goods and textiles from the developing countries in the 1960s and 1970s. This will require strategies of marketing and distribution arrangements between the Saudi Arabian petrochemical producers and the foreign joint venture partners. It will also require free trade among all countries of the world, so that the worldwide distribution of Saudi Arabian petrochemical products, which are maufactured on a firm basis of international comparative advantage, will be able to satisfy international demand without restriction by high tariff protection or informal trade barriers.

The issue of free trade extends to the development of non-hydrocarbon industries to satisfy local demand within Saudi Arabia. Saudi Arabia has consistently followed a policy of very low tariff barriers and free and fair market competition, which ensures that local industries are efficient. However, the most efficient industries can not compete against unfair competition and dumping, hence it is necessary to form internal policies and also international arrangements which ensure free and fair trade.

In the past there has been a clear trend towards the formation of regional free trade areas and common markets. The European Community has led the way in 1958, followed by the Andean Pact, the Association of South East Asian Nations, and most recently by the Gulf Cooperation Council. Such "common trading areas" are undoubtedly of great benefit to the member countries and help to overcome the problems of market fragmentation which have constrained development in the past. But the challenges will be to ensure that the "common trading areas" do not evolve as massive trading blocks which restrict the free flow of trade among all regions and countries of the world. The real challenge is to ensure there will be real opportunities for economic growth and free trade - especially among the countries and the regions of the developing world.

The emergence of "common trading areas" will also bring forth the old dilemma of balancing each country's own internal interests with its international responsibilities and its need for international cooperation. Each country needs free trade. Yet each country also needs a measure of protection for its own industries, particularly for the infant industries of a developing country.

In the past decade, Saudi Arabia has had a special role with major international responsibilities as the main exporter of crude petroleum, as one of the major exporters of every type of product and service from all parts of the world, as a major source of development aid. These are heavy responsibilities for any country, and it is important to place the Kingdom's resources and potential in a truly global perspective. Even though Saudi Arabia is classified as a capital surplus oil exporting country, the size of the national economy is still small compared to the industrialized countries of the world.

The decade of the 1980s is likely to be marked by uncertainty. The 1960s were marked by steady economic growth, increasing prosperity and wider international trade. The 1970s demonstrated that many of the conditions which allowed this growth (such as cheap energy) were severely detrimental to the long-term interests and hopes of development of the developing countries. Some of these conditions have now been fundamentally altered (such as the levels of oil price). Others (such as the Generalized Scheme of Preferences) have not been implemented or maintained in entirety as originally hoped for by the developing countries; while still others such as the extension of credit to many countries are still causing difficulties.

At this moment, in early 1983, the world is still in the grip of recession, and there is uncertainty whether there will be a pattern of even growth in the future, or a cycle of boom and recession as countries try to balance the needs for growth and full employment against tolerable levels of inflation. From the perspective of Saudi Arabia, this uncertainty only makes more certain the need and the urgency to move ahead with the programme of industrialization, within the framework of the strategies and policies outlined by the Council in Saudi Arabia.

INDUSTRIAL STRATEGIES AND POLICIES OF THE REPUBLIC OF KORA FOR THE 1980s by Jongsik Koak*

The past development of the Republic of Korea

Through successful implementation of past four development plans the Republic of Korea's economy has achieved rapid growth. Not only has the size of the economy expanded markedly, but the economic structure has been modernized and improved qualitatively.

Table 1. The performance of the economy

	Unit	1962(A)	1980(B)	B/A
GNP	US billion $ (1980 Prices)	12.7	57.4	4.5
Per capita	US $ (1980 prices)	477	1,506	3
	(current prices)	87	1,506	17
Commodity Exports	US billion $ (current prices)	0.5	172	315

Since the mid-1960s the Republic of Korea has put a policy of export-led industrialization into effect with the aim of increasing exports of labour-intensive, light industrial products such as textiles, plywood and footwear. This approach was adopted because the Republic of Korea has abundant human resources. This policy has shown great success, partly due to the global trend toward free trade within the GATT and IMF system.

Since the 1970s, large-scale investment projects have been undertaken in the steel, ship building, petrochemical and the machinery industries in order to deepen the industrial structure, which has paved the way to a more effective industrial structure. In order to fill the gap in financing the ever increasing investment requirements, there was no alternative but to actively induce foreign capital.

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* Mr. Jongsik Koak, Assistant Director, Overseas Cooperation Council, the Republic of Korea.

Table 2. Foreign Capital [1]

(Current Prices: mil. $)

	1st Plan (1962-66)	2nd Plan (1967-71)	3rd Plan (1972-76)	4th Plan (1977-80)
Loans	291	2,166	5,432	10,256
Public	116	811	2,389	4,084
Commercial	175	1,355	3,043	6,172
Direct Investment	17	96	557	425
Total	308	2,262	5,989	10,681

Note: 1. Short-term capital and bank loans are excluded.

However, the two oil shocks and the subsequent world-wide recession have aggravated the external economic environment of the country. Most of the industrialized countries have imposed some kind of import restrictions on the products made in the developing countries. Even worse, the Republic of Korea has been losing her international competitiveness based on low labour costs. Moreover, in the early 1980s, the international monetary and trade order has fallen into disarray. The world economy of the coming decade will, therefore, feature unprecedented uncertainties and fierce competition.

Also, the overly rapid growth policy of industry has caused several structural problems. In the first place, excessive investment in capital-intensive heavy and chemical industries has created an imbalance in investment between light and heavy industries. Secondly, continuous investments in excess of domestic savings capacity during the latter half of the 1970s have rendered the subsequent high levels of inflation unavoidable. Thirdly, although promotion of large-scale projects facilitated the growth of large firms, small and medium firms were allowed to stagnate. Lastly, most of the investment took the form of tangible physical facilities while technological and manpower development were neglected.

INDUSTRIAL POLICIES AND STRATEGIES FOR THE 1980S

Industrial policies and structural changes

In the course of industrialization manufacturing industries have expanded substantially and contributed extensively to the Republic of Korea's economic growth. Since the mid-1970s, the industrial structure has been remarkably deepened. This leaves an important task for the country in the 1980s: to maintain the growth rate and in particular to enhance the efficiency of the manufacturing sector. During the Fifth Plan period, the government intends to change its industrial policies to allow industries to develop in line with the shifting comparative advantages in the world market. The policy will encourage the expansion of sectors that have comparative advantages and induce innovations in technology and business management.

The basic direction of the investment policy during the 1980s will be to expedite more balanced growth and to prepare the economy for further exposure to international competiton. The industrial incentive system will be realigned, so that investment resources will be allocated more rationally in accordance with the principle of international comparative advantage. In addition, investments for enhancing productivity and international competitiveness will be expanded across all sectors of the economy.

Sectoral Plans: Objectives and policy tools

Machinery Industry

The growth of the machinery industry is closely related to three factors: stable demand for its products; development of small firms producing parts and components; and technological improvement. To promote domestic demand, the current system of producers credit will be changed to a buyer's credit system. And, at the same time, tax incentives will also be provided to increase the domestic demand for machinery.

The Government will also expand credit for exporting ships, machinery and industrial plants on deferred payments. Small firms producing parts and components will receive Government support to promote growth. Production specialization among these small producers will be strongly encouraged. As part of the efforts to promote technological advancement and innovation, private and Government-funded research institutes will be utilized, and financial and tax incentives will be provided to induce private investment in research and development.

Shipbuilding Industry

The long-range prospects for the shipbuilding industry are good considering the steady decline of production capacity in the developed countries. During the plan period, shipbuilding capacity will be increased substantially. To enhance competitiveness, technology and the parts industry will be promoted. Moreover, the export value of ships will be increased from 440 million dollars in 1980 to 5.4 billion dollars by 1986. This increase will be made by exporting high value added ships and by upgrading the quality of exported ships. Shipbuilding capacity will be increased to meet the rising domestic and export demand, and in 1986 total production capacity will reach 6 million G/T. Also the Government will increase financial resources available for exporting ships on a deferred payment basis and, in addition, in order to reduce production costs, standardization and volume production will be pursued.

Automotive Industry

The world automobile market is restructuring itself and making rapid technological innovations. Accordingly, in order to increase its economic efficiency and compete in overseas markets, the Republic of Korea's auto industry must also be advanced. Present production capacity of automobiles exceeds the domestic demand. In the future overall automobile production capacity will be carefully forecasted to take into account all aspects of prospective demand, which is expected to rise significantly. It is believed that the optimal level of increase in the capacity for passenger cars is approximately 300 thousand units per year.

Further, specialization in automobile production will be pursued to raise the capacity utilization rate. Imports of foreign technology and domestic development of new technology will be encouraged. Local products must improve with respect to weight, fuel efficiency, safety, and anti-pollution devices. Within the industry special emphasis will be placed on the parts industry. To increase productivity, the plan will promote specialization, standardization, and mass production of automobile parts and components.

Electronics Industry

The international electronics industry has grown rapidly during the last decade, but the technology and production facilities of the country's electronics industry have not kept pace. However, the industry consumes relatively less energy and natural resources, and most electronic products require labour-intensive technology in production. More importantly, the industry is becoming increasingly relevant to the growth of other industries such as machinery and shipbuilding. Thus its growth will be a key to the advancement of the country's industrial structure.

During the plan period, the composition of electronics products will be shifted from consumer electronics and the assembly of components to high value added and technology-intensive products such as semi-conducters, computers and communications equipment. Research institutes will lead the development of key technologies and expand the base for absorbing foreign technologies. As an incentive to induce imports of new, developing technologies, semi-conductors, for example, foreign firms will be permitted majority ownership.

Concurrently, through enlargement of the domestic telecommunications system and computerization of both Government administration and business management, sources of domestic demand will be reinforced. Some overseas investment will also be undertaken to exploit the experiences of the

Republic of Korea which has accumulated through export of consumer electronics during the past decade.

The steel and non-ferrous metals industries

The development of the steel and non-ferrous metals industries will be promoted primarily to fulfill domestic market demand and to ensure a stable supply of raw materials to the interrelated domestic industries. An unreasonable drive to achieve self-sufficiency in these industries will not be attempted. Obsolete and superannuated production facilities will be replaced by modern integrated productive facilities. A stable supply system for raw materials such as iron, ore, bituminous coal and copper will be established through participating in the development of overseas raw materials and entering into long-term supply contracts.

Petro chemical industry

The domestic petrochemical industry is in a weak position in terms of international competitiveness. Consequently, good orchestration between investment policies to expand domestic production facilities and import policy to stabilize the supply and prices of raw materials are needed during the plan period.

New construction and/or expansion of petrochemical industry facilities will be determined after close evaluation of the size of projected future demand, the prospects for acquiring an adequate supply of raw materials and international competitiveness. In other words, development of the petrochemical industry will be induced and propelled step by step, and plant by plant according to the marketability of the products in the country and overseas.

To cope with external changes in raw material supplies, joint investments in resource-rich countries will be supported and encouraged. To ameliorate the shortage of petrochemical raw materials, natural gas will be gradually substituted for naphtha and the expansion of naphtha-cracking facilities will be undertaken, but only to the extent that raw materials can be secured.

Textile industry

In the past, the textile industry has been the main source of the country's exports. However, it currently suffers from weakened competitiveness: the rate of wage increases is relatively high domestically and competition in the international market has recently intensified. Furthermore, many advanced countries regulate imports of textiles from developing countries. Nevertheless, the textile industry is still expected to play a large role as an export industry during the plan period, but this can only be accomplished by exploiting new production technologies and improving product quality.

To encourage stable growth and development of the textile industry, improvement of the production structure is needed in order to encourage more high value-added production. A positive policy to exploit the international market is needed in response to import regulations by advanced countries. The Government will also expand the Textile Facilities Modernization Fund for facilitating modernization of facilities through equipment automation and replacement of superannuated facilities.

Moreover, development of the dyeing industry is essential to improve the quality of textile products. The dyeing industry in the country is obsolete and is a bottleneck in the process of improving the quality of textile products. Consequently, the Government will emphasize the development of fine chemical technology to help improve the quality of dyestuffs during the plan period.

Small and medium industries

Small and medium industry is one of the less developed sectors in the economy; these enterprises have not been able to gain easy access to new production technology, and the linkage with large enterprises is not well established. However, the development of small and medium industries is emphasized in the fifth plan. During the plan period, the Government will lay emphasis on voluntary structural improvements of small and medium enterprises, instead of excessive protection and assistance to them.

Specifically, the Government is going to support the activities of small and medium enterprises through an equitable tax policy, and give them opportunities equal to large enterprises in gaining access to bank loans. This will be achieved by giving autonomy to banking institutions. In doing this, small and medium enterpsrises will be able to improve the quality of their products, increase productivity and enhance their international competitiveness.

Furthermore, the Government is going to expand technical and management extension service by better utilizing the resources of the Small and Medium Industry Promotion Corporation and the Korea Production Technology Service Corporation. For that purpose, the functions of those two organizations will be reviewed and restructured so that they may cooperate effectively in collecting and distributing information, and expand their management guidance and consulting services. As a means to support the development of technology-intensive small enterprises, a venture capital system will be introduced and operated.

Conclusion

As mentioned above, the industrial strategies and policies of the developing countries should be executed in line with those of the industrialized countries. Under circumstances of world economic recession, it is more difficult a time than ever before for the leveloping countries to meet their goals.

Thus, the Government of the Republic of Korea would like to propose that now is the time when the developing countries should help each other through industrial cooperation in such fields as natural resources, technology transfer and exchange of development techniques. And it is also necessary that international organizations such as UNIDO, UNCTAD and ESCAP should play a leading role in strengthening mutual cooperation among developing countries.

Moreover, concerning the present world economic recession the developing countries should adopt a common approach to the industrialized countries so that they do greater efforts in order to ease their protectionism or import restrictions on the products of the developing countries. In short, without the help and goodwill of the industrialized countries, any effort by UNIDO will be ineffective.

ANNEX TABLES

1. Major Indicators for the Fifth Plan

	Unit	1982	1983	1986	
				Revised	Original
Real Growth of GNP	%	5.8	7.5	7.5	7.5
Exports	$.U.S.Billion	21.0	23.5	37.2	53.0
Imports	"	23.4	25.5	36.3	55.5
Current Account	"	–2.5	–2.0	–0.2	–3.6
(Ratio to GNP)	%	(3.8)	(2.7)	(0.2)	(2.5)
External Debt	$.U.S.Billion	37.2	40.9	49.0	64.5
External Assets	"	8.6	9.6	14.5	18.6
Net External Debt	"	28.6	31.3	34.5	45.9
(Ratio to GNP)	%	(43.2)	(42.7)	(32.3)	(31.6)
Debt Service Ratio	%	15.5	14.2	13.7	11.1
Gross Investment Ratio	%	27.5	28.1	30.9	32.5
Domestic Savings Ratio	"	21.9	24.6	29.7	29.6
Foreign Savings Ratio	"	4.6	3.4	0.7	2.9
Statistical Discrepancy	"	1.0	0.1	0.5	0

2. External Debt and Assets

$.U.S. Million

	1980	1981	1982	1983	1986
External Debt	27,365	32,490	37,234	40,901	49,008
Medium & Long-Term	16,754	20,750	23,159	25,433	31,010
Loans	12,827	14,349	15,728	16,748	1,900
Bank Loan	2,309	4,174	5,298	6,308	7,268
IMF Credit	723	1,246	1,529	1,221	191
Bond	288	358	341	523	1,950
Trade Credit	576	564	463	563	813
Others	41	59	70	70	70
Short-Term	7,575	8,465	10,163	11,056	12,086
Non-Bank	4,158	4,089	3,884	4,034	4,184
Bank	3,417	4,376	6,279	7,022	7,902
Foreign Bank "A" Account	3,036	3,275	3,912	4,412	5,912
External Assets	7,331	8,183	8,628	9,598	14,548
Foreign Exchange Reserves	6,571	6,891	6,980	7,300	9,100
Exports-on-Credit	426	861	1,230	1,880	5,030
Other Financial Assets	334	431	418	418	418
Net External Debt	19,892	24,307	28,606	31,303	34,460
(% of GNP)	(35.3)	(39.1)	(43.2)	(42.7)	(32.2)

EXPERIENCES OF NIGERIA IN THE AREA OF INDUSTRIAL DEVELOPMENT STRATEGIES AND POLICIES WITH A PARTICULAR EMPHASIS ON FUTURE PERSPECTIVES by A.O. Oluwunmi*

INTRODUCTION

In broad sectoral classification, the industrial sector is made up of mining and quarrying, manufacturing, and utility. However, industrialization is generally regarded as synonymous with the growth of the manufacturing sector, and this paper will, therefore, be concerned with the manufacturing sector of the Nigerian economy.

The manufacturing sector in Nigeria has been developing steadily since the mid-1960s. The sector grew at the rate of 15.6% per annum at 1973-1974 constant prices between 1974-1975 and 1977-1978. It is projected that it will grow by no less than 15% per annum during the current National Plan period (1980-1984).

In spite of this growth, the contribution of the manufacturing sector to Nigeria's GDP has tended to fluctuate and has remained very low. In 1960, the share of manufacturing in GDP was 3.32%; in 1980 it had not grown beyond 7.4% at 1977 factor cost; and it is projected to reach about 10.5% by 1985. This percentage share of GDP is still quite low compared with 15-20% already recorded in many countries at a similar stage of development but with less endowment of natural resources. The local input content of manufacturing value-added (MVA) during the same period is most unsatisfactory. In 1960, it was 1.35% and had only managed to grow to 3.4% in 1975. This level of contribution to GDP is made more glaring by comparing it with corresponding figures for other more developed, developing countries as shown in Table 1.

Table 1. Local input content of MVA

Country	1960	1975
NIGERIA	1.35	3.41
BRAZIL	21.45	24.86
INDIA	12.43	15.22
MEXICO	19.03	23.03
REPUBLIC OF KOREA	11.10	32.31
TURKEY	12.88	21.53

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* Mr. A.O. Oluwunmi, Director, Policy and Planning, Federal Ministry of Industries, Nigeria.

The output structure of the sector today, after more than two decades of national efforts, is still characterized by the preponderance of light industries, such as food, beverages, textiles, tobacco, footwear, soaps and detergents and livestock feeds, all involving relatively simple technology. Attention has, however, begun to shift to basic metal and engineering industries, ranging from the elementary sub-groups such as metal furniture, fixtures, and structural metal products to machine tools, iron and steel, motor vehicle assembly, and petro-chemical industries.

The basic engineering industries are just beginning to be established. Its contribution is estimated at only about 12.9% of the total value added in the manufacturing sector, whereas the average for comparable developing countries is already about 16.4%. Moreover, the vital industries in the sub-sector, such as those manufacturing household electrical apparatus, agricultural machinery and equipment, transport equipment etc., account for only 2.2% of the value-added in the sector.

The output structure shows an almost total absence of the production of intermediate and capital goods, especially in the high technology areas. For example, basic industrial chemicals, such as fertilizers and pesticides, account for only about 0.2% of total value-added in the sector, while consumer oriented chemicals such as toileteries and household detergents account for as much as 8.2%. With regard to the input structure, the manufacturing sector is at present dominated by assembly-type activities. In general, industrial costs are too high in relation to value-added. The import content of the manufacturing sector is still very high. On the average, over 60% of the raw materials is imported. As for the high technology groups, the percentage is even much higher than the basic industrial chemicals (87.3%), glass products (92.9%) and textile goods (91.9%).

STRATEGIES AND POLICIES

Earlier Strategies and Policies

Having given an overview of the performance and characteristics of the manufacturing sector of the Nigerian economy, it will appear pertinent to state briefly the various strategies that have been applied in the course of Nigeria's industrialization efforts. The nistory of Nigerian industrial development shows that Nigeria, like other developing countries, has applied at various stages a combination of the following strategies:

- manufacture of simple goods for export;
- semi-processing of primary products; and
- import substitution.

Manufacture of simple goods for exports

The emphasis here is one the word "simple". The rationale is that Nigeria has abundant labour and scarce capital and so it could find out and produce simple manufactured goods which use more labour and less capital and export them e.g. textiles, leather shoes, etc.

Semi-processing of primary products:

The rationale for this is that Nigeria, like other developing countries, is a producer of primary products; if it semi-processed them before exporting, their values could be increased. As reflected in Table 2, the value of Nigeria's exports of manufactured goods has been dominated largely by simple processing of agricultural products which accounted for 83% of total value of manufactured export in 1970, falling to 78% in 1974, but rising even more dramatically to 94% in 1978. Most of Nigeria's manufactured exports are semi-processed products such as cocoa butter, cocoa cake and cocoa powder.

Import substitution

The colonial powers did not provide any basis for industrialization, as neither the infrastructure nor the trained manpower for industrialization was developed. Nigeria was seen as a market for industrial goods from the

Table 2. Export of Manufactured Products 1970-1978

Products	1970		1974		1978	
	Value (Nm)	%	Value (Nm)	%	Value (Nm)	%
Agricultural	26.6	83.1	31.7	78.1	31.4	94.0
- cocoa butter	(15.6)	(48.8)	(26.9)	(66.3)	(31.4)	(94.0)
- others	(11.0)	(34.3)	(4.8)	(11.8)	-	-
Non agricultural	5.4	16.9	8.9	21.9	33.4	100.0
TOTAL	32.0	100.0	40.6	100.0	64.5	100.0

Source: Central Bank of Nigeria, Annual Report.

industrialized countries. For Nigeria, therefore, import substitution became a very attractive strategy for industrialization immediately after independence. Given the low base for industrialization in the country and the existing demand for imported consumer goods, it was, therefore, simple and logical to base the rationale for industrialization on the domestic replacement of these finished goods by importing the components or semi-finished materials and engaging in the final assembly process.

Using the strategy of import substitution, Nigeria has come to produce a range of products including textiles, food, beverages, tobacco, footwear, soaps and detergents and livestock feeds. There are now about 23 air conditioner, 11 refrigerator and 20 combined air conditioner/refrigerator plants; 12 autoparts, 12 metal furniture, 16 cable manufacturing industries, as well as 93 building materials industries. In the chemical sub-sector there are industries producing pharmaceuticals, paints, and cosmetics. There are also 19 soap and detergents, 18 chemical products, and 12 plastic factories. In the sphere of electronics, the requirements for radio and television sets are being met by 89 local electronics industries where some degree of manufacturing is also being undertaken.

Nigeria also has 65 feedmills, 464 bakeries, and 20 watch assembling factories. In addition, the country now has 2 car assembly plants with a combined capacity for 90,000 cars per annum and 4 commercial vehicle assembly plants with a combined capacity for 35,000 trucks and 6,000 agricultural tractors. The soft drink bottling companies and 15 breweries are attempting to meet the requirements for beer and soft drinks in the domestic market and the bottles they use are locally manufactured. There is absolutely no need for the importation of safety matches, candles, furniture, and carpets into Nigeria, as these are being competently manufactured locally.

As a result of this strategy, the level of dependence on imports as at 1973/1975 in the following areas, according to the current Development Plan document, were as follows:

- vegetable oil milling	10.3%
- saw milling	8.0%
- spirits, distillery and brewing	12.5%
- tyres and tubes	17.7%
- soap, perfumes and other cleansing preparations	16.1%

The worst areas are those related to the supply of industrial and agricultural machinery and equipment where the degree of dependence for the same period is about 98.8% and 93.9% respectively. The other areas of heavy dependence on imports are household electrical apparatus and other electrical supplies (93.6%), motor body building (92.7%), shipbuilding (89.4%), basic industrial chemicals, fertilizers and pesticides (89.2%), weaving apparels (88.9%), radio, television and communication equipment (87.5%), drugs and medicines (83.8%).

Also, Table 3 reveals that domestic production of soft drinks, beer and stout and cotton textiles represents about 95% of total supply. Similarly over 90% of total supply of roofing sheets, soap and detergents are locally produced. The country's import-substitution strategy of industrialization together with the associated incentive system is presumably responsible for these laudable results.

Table 3. Domestic and Foreign Components of Supply for Selected Manufactured Products

Products	Units	1973		1974		1975		1976	
		Total Supply	% Domestically Produced	Total Supply	% Domestically Produced	Total Supply	% Domestically Produced	Total Supply	% Domestically Produced
Soft drinks	million litres	102.6	99,1	87.4	99.6	142.9	99.0	204.7	99.5
Beer and stout	million litres	218.1	98.5	237.7	97.3	374.2	78.5	515.4	71.3
Cement	million tonnes	2.2	56.8	2.3	53.8	3.3	38.4	3.4	37.2
Cotton textiles	million sq.meters	307.7	95.5	287.1	96.4	353.3	94.6	334.8	91.9
Footwear	million pairs	21.1	79.4	21.9	89.4	28.6	84.6	27.4	71.9
Paints and allied products	million litres	17.6	85.9	18.9	80.0	27.7	7.9	30.4	70.7
Roofing sheets	'000 tonnes	95.3	95.8	75.3	90.1	115.1	5.8	113.3	94.6
Soap and detergents	'000 tonnes	76.5	90.3	81.0	93.9	85.0	89.6	103.1	93.7
Sugar	'000 tonnes	n.a.	-	n.a.	-	156.6	34.7	172.7	27.7

Source: Central Bank of Nigeria, Annual Report, various years.

Defects of the strategies

The strategy of manufacturing simple goods for export entails heavy competition, especially from the more developed of the developing countries. Goods exported under this strategy also fall an easy prey to protectionist policies in the export markets. The semi-processing of primary products suffers from the low income earned by many tropical agricultural products; it also suffers from price elasticity of demand. Moreover, the developed countries frequently prefer to undertake processing from the primary products, unless the semi-processed goods are considerably higher in weight than the primary products.

As regards the import substitution strategy, it has tended to create an illusion of industrialization: the physical appearance of a large number of industrial establishments makes one believe that industrialization has really advanced, whereas in truth very little has been accomplished in terms of local value-added. Nigerian manufacturing industries still depend on heavy imported inputs, especially capital goods and raw materials. Table 4 shows that the bulk of the country's foreign exchange outflow is expended on these two import groups.

Table 4. Imports by Major Groups (1970-1978)

Import Group	1970		1974		1980	
	Value (Nm)	%	Value (Nm)	%	Value (Nm)	%
Consumer goods	218.2	28.8	506.5	29.2	2291.1	27.9
Capital goods	285.2	37.7	646.5	37.2	3982.7	48.5
Raw materials	234.4	31.0	573.7	33.0	1929.7	23.5
Miscellaneous	18.6	2.5	10.6	0.6	8.2	0.1
TOTAL	756.4	100.0	1737.3	100.0	8211.7	100.0

Source: Central Bank of Nigeria, Annual Report.

New industrial policy and strategy

In 1980, the Federal Government of Nigeria published a blueprint on its industrial policy and strategy, the "Nigerian Industrial Policy and Strategy: Guidelines to Investors". In it, the objectives of industrialization, of course, include the harnessing of the human and material resources of the nation for the production of goods and services required for domestic consumption and international trade. In the process, gainful employment is created for a large number of people, a high degree of national self-reliance is achieved, and the standard of living of the people generally is raised. The strategy for achieving the objectives of industrialization are also set out. The package of industrial incentives is the kingpin of the strategy.

The establishment of the Industrial Development Coordination Committee is of great importance in that it is intended to help minimize if not totally eliminate the complaints of investors, especially foreign investors, that the procedure and processes to be followed to set up an industry in Nigeria is too cumbersome and time consuming. The Secretariat of the IDCC will be the one-point contact the entrepreneur need make with Government agencies charged with responsibilities for processing applications of the various permits, approvals and licences required for an industry. The committee is also to advise the Minister of Industries from time to time on matters of Industrial policy. Certain other establishments and measures are also being used as part and parcel of the strategy for achieving Government's industrial policy objectives, and these are briefly outlined below.

The Nigerian Standards Organization was established by law and charged with responsibility for prescribing and monitoring standards for industrial products in Nigeria. Its role is to ensure that, quality-wise, the products of Nigerian manufacturing industries compare favourably with their foreign counterparts. This is to ensure that Nigerian industrial products can compete well in international markets, and that the Nigerian consumer enjoys good value for money.

The Industrial Inspectorate Division was also established by law and charged with responsibility for checking claims of capital expenditure with a view to ascertaining that what an industrialist claims to have spent on machinery and equipment for his industry was actually spent, and that the prices of such machinery and equipment have not been inflated. The Division carries out physical inspection of plant and machinery in factories to check sharp practices.

The Nigerian Enterprises Promotion Board was set up by law as an instrument of implementation of Goverment policy decision that Nigerians should be closely involved in the industrialization process and ascend to the commanding heights of the national economy. Under the Nigerian Enterprises Promotion Act, all business enterprises are grouped into three schedules. Those classified in Schedule I are reserved exlusively for Nigerians. They are relatively simple enterprises in terms of technology and capital investment. Foreigners can participate in Schedules II and III enterprises up to 40% and 60% of equity respectively. The Board is to ensure compliance with this requirement by all business enterprises in the country.

The National Office of Industrial Property was also established by law principally to oversee the licensing and technical agreements between Nigerians and their foreign business associates. The aim is to ensure that the terms and conditions of cooperation are equitable and that there are no obnoxious clauses in these agreements which could be prejudicial to the interests of the Nigerians involved and the national economy.

The Export Promotion Council is, as its name implies, charged with responsibility to encourage export of Nigerian goods and services to other countries by helping to remove any disincentives in this regard and positively encouraging Nigerian entrepreneurs to sell their products in foreign markets.

The Industrial Training Fund is a statutory organization concerned to promote on-the-job training of industrial personnel and create training and industrial attachment facilities for technology students. It helps with the funding of such training and organizes training courses for various categories of the country's labour force.

The N.I.D.B. and the N.B.C.I. The Nigerian Industrial Development Bank (N.I.D.B.) and the Nigerian Bank for Commerce and Industry (N.B.C.I.) are the two financial institutions set up by the Government as part of its efforts to solve the problems of industrial financing. The Government makes funds available to these banks for on-lending to deserving industrial ventures. As development institutions, their terms are less stringent than those of commerical banks. In addition, the guidelines issued by the Central Bank of Nigeria to the financial institutions in the country provide for preferential lending to industry, especially small-scale industries. There are other financial arrangements to enhance availability of funds for small-scale industrial development throughout the country.

Small-scale Industries. This sub-sector enjoys high priority rating with the Government because of its potentiality in helping to develop the rural areas and thereby checking the migration of rural population to the urban centers. The establishment of Industrial Development Centres (IDCs) is the most pragmatic measure by the Federal Government to speed up and streamline small-scale industrial developemnt. The IDCs render extension services to small industrial entrepreneurs and help them with various problems, including the preparation of feasibility reports which could be used to secure bank loans, choice of appropriate technology, machinery and equipment, plant lay-out, modern business practices, staff training and minor repairs to plant and machinery. The Government is to establish and IDC in each of the States of the Federation; thirteen are already functional.

Industrial Incentives. The entire package of industrial incentives is currently under review to streamline it more effectively with the policy objectives of Government and to establish an appropriate machinery for administering and monitoring the effectiveness of each incentive.

Infrastructural Facilities. In spite of heavy investments by Government in the development of industrial infrastructures, supply has tended to limp behind demand, especially the supply of electric power and water. However, several projects are being executed to improve the supply of these vital facilities, including transport and telecommunication facilities. In addition active thought has begun to be given to the establishment of industrial estates which will be well provided with all the basic industrial infrastructures.

Basic Industries. As a matter of policy, the role of Government should, as much as possible, be limited to providing a regulatory environment conducive to profitable industrial entrepreneurship. However, the Government has had to be more directly involved not only in industries which have bearings on national security but also other industries which entail heavy capital investments, sophisticated technology and long gestation periods. Iron and steel, machine tools, refined petroleum, cement, fertilizer, sugar, pulp and paper, transportation, telecommunication, and petrochemicals are some industries in which direct public sector investment has been deemed necessary to avoid total and indefinite dependence on imports.

Investment Information and Promotion. There is, in the Federal Ministry of Industries, an Investment Information and Promotion Centre which is concerned to furnish both existing and prospective industrialists with the information they require for sound investment decisions. The Centre also assists investors in other ways, such as linking them with joint venture partners and rendering advice on sources of machinery and equipment. A branch office of the Centre has recently been established in New York; it is proposed to establish other branch offices in other business centres of the world. An industrial data bank is being established to facilitate the process of finding and providing information on the Nigerian industrial sector which planners, investors, consultants and researchers would from time to time require.

Cooperation with other African countries. The Nigerian Government is committed to a policy of encouraging inter-African cooperation. It is in this spirit of cooperation that Nigeria played a leading role in the establishment of the Economic Community of West African States, the Nigeria-Niger Joint Commission, the Lake Chad Commission, and the African Regional Centre for Engineering Design and Manufacturing, to mention some organs for mutually beneficial economic cooperation. Nigeria is participating in the Save Sugar and Onigbolo Cement Projects in the Republic of Benin, Zwaziland Sugar, the Mifergui Nimba Iron Ore project in Guinea, a fertilizer project in Senegal, and a Copper Extrusion Project to be jointly implemented by Nigeria and Zambia. Further avenues for cooperation are being explored.

Conclusion

Nigeria's blueprint on industrialization is barely over three years old. Most of the underlying consideration and parameters on which the policy prescriptions and strategies were based are still valid today. Many aspects of the blueprint, the institutions and measures described above, are therefore likely to remain relevant in the immediate future. However, certain facts about the industrial sector of the Nigerian economy have presented themselves more forcefully than before; they have underscored the need to upgrade the priority ratings hitherto accorded some aspects of Nigeria's industrialization strategy. The preponderant dependence on imported inputs could cripple industries, especially in the face of dwindling foreign reserves without which imports are impossible.

Nigeria must, therefore, explore all avenues for rapidly developing sources of local raw materials for her industries. The capacity for producing intermediate and capital goods must also be developed and nourished. With the success being achieved in the Green Revolution programme of the Federal Government, the drain on the country's foreign reserves should be reversed before long if the industrial sector also becomes less dependent on foreign products. Linkages within the industrial sector and between the manufacturing and the agricultural sectors should go a long way in enhancing the self-reliance of the economy. Facilities for research and development will need to be seriously developed and used to develop domestic sources of raw materials as well as improve product quality and operational efficiency.

It could be said that very considerable groundwork has been done for the industrialzation of the Nigerian economy, but in order to reap the fruits of what has been done some further work is urgently necessary. Paramount among these are the provision of infrastructural facilities, reduction of imported inputs to the minimum possible proportion, and effective linkages throughout the productive sectors of the national economy.

PERUVIAN INDUSTRIAL POLICY: PAST AND PRESENT by Ivan Rivera Flores*

INTRODUCTION

Peru is a country of intermediate development; it has 18 million inhabitants and its per capita GDP is US$1.180. Its industry accounts for 25% of GDP and employs 12% of the working population. Export industry accounts for 12.7% of total industrial output.

Peruvian industrial policy over the past 12 years has had two phases, clearly differentiated in respect of fundamental aspects such as industrial structure, the role of the State, the area of industrial growth and the role of labour, property and management within the industrial enterprise. The first period, marked by the implementation of the military government's Industries Act, takes us up to the year 1976. The second period begins in 1977 with substantial amendments to the Industries Act and with considerable emphasis on export industry; it continues with the beginning of the process of trade liberalization in 1979, to be consolidated with the new Industries Act adopted in May 1982.

INDUSTRIALIZATION ON THE BASIS OF BASIC INDUSTRY

Principal characteristics of the industrial model

The main objective of the Industries Act promulgated by the Military Government in July 1970 was to secure accelerated and stable growth within a framework of economic independence and distributive justice.

In order to achieve this objective the Government established an import substitution model with certain variants to permit the attainment of economic independence and distributive justice.

Thus a policy of closed markets to protect industrial products manufactured within the country was established through the National Register of Manufactures, a mechanism by means of which imports of products manufactured within the country were prohibited. This Register was instituted under the 1970 Act and maintained until 1979.

Simultaneously, with a view to attaining economic independence and passing on to a "second" stage in import substitution - i.e. passing from the substitution of consumer goods to that of capital goods and inputs - a system of priority industrial sectors was established, whereby differential tax credits for reinvestment and differential reductions in customs tariffs on imports of capital good and inputs, among other advantages were granted according to the degree of priority given to the industrial activity concerned. Thus top priority was given to basic industries producing fundamental inputs for productive activities - such as iron and steel, basic chemicals, fertilizers, cements, paper, etc. - and to industries producing capital goods - machine tools, heavy transport equipment, aeronautical equipment, shipbuilding, etc. These were followed in order of priority by traditional Peruvian industries, mainly food, textiles and small-scale metalworking industries producing inputs for other productive activities.

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* Mr. Ivan Rivera Flores, Secretary General, Ministry of Industry, Tourism and Integration (MITI), Peru.

Together with the establishment of priorities, the production and marketing of basic industrial goods were brought under State control, with industrial planning replacing market forces. Thus heavy industry, a field involving large initial outlays which had traditionally been covered by foreign investment, became the monopoly of the State. To promote distributive justice the State established the system of "comunidad industrial" (industrial co-ownership), an arrangement whereby the worker was given a share in the ownership aned management of existing private enterprises as well as in their distributed profits. The original plan provided for workers to be able to acquire up to 50% of the ownership of an enterprise, but this ceiling was lowered to 33% in 1977.

In parallel with these measures the Government, at the beginning of the decade, promulgated an Employment Protection Act under which the worker was guaranteed permanency in his job. It also established a new system of industrial ownership - "social ownership", in which the workers were granted the collective ownership of the means of production along the lines of the Yugoslav model; this system being declared by the Government to have priority.

The results of industrialization on the basis of basic and State industry

Industrial production increased by 7% per annum in the first five years of the new policy, and investment in machinery and equipment by 15% per anum. In this period the industrial sector doubled its capital stock, but output increased by only 40%. The system of industrial protection generated considerable shortfalls in production; it also led to a reduction in the use of installed industrial capacity owing to an over-valuation of the national currency; to the granting of loans at subsidized rates and to the establishment of the "comunidad industrial" system which encouraged businessmen to plough back profits so as to prevent the workers from attaining a 50 per cent share in the ownership of the enterprise. It must be pointed out that the growth achieved over this five-year period was also partly due to the expansionist macro-economic policies pursued.

The existing productive structure, which was basically geared to import substitution, was accentuated as a result of the massive ploughing back of profits in the private sector. Simultaneously, in a context of "complete" protection and of great uncertainty regarding the future of private enterprise, only those activities which, being highly protected, yielded a rapid return and could easily be automated were developed. Thus an unexpected twist was given to the proposed industrialization strategy.

In the field of investment, private capital accumulation was concentrated in the first five years and in reinvestment in existing enterprises. The State spent a large part of its financial resources on nationalizing basic industrial enterprises and contributed little to the development of the sector reserved for it. Its major investment effort was concentrated on increasing iron and steel and paper production, with negative results because new technologies were introduced without sufficient preliminary testing with the result that operating costs were very high. The State also participated in "joint ventures" in the metalworking field and in chemicals; in both cases the degree to which activities were integrated on a national scale was very low and the results were by no means positive if measured by international standards.

The most disappointing results were those obtained in the field of employment. The over-evaluation of the sol, combined with subsidized credit for the industrial sector and the selective lowering of customs tariffs on capital goods and inputs, cheapened these items in relation to labour. The proposed industrial structure, which gave priority to capital-intensive heavy industry, discriminated against unskilled labour, which is the country's most abundant asset. The Industrial Co-ownership Act paralysed investment in new industrial activities and caused such activities as were nevertheless launched to be increasingly automated. Similar effects on employment were produced by the Employment Protection Act.

An important corollary of this extreme form of import substitution was the complete lack of incentive to develop an export industry. The banning of imports coupled with unlimited protection for the tiny, monopoly-prone domestic market resulted in the manufacture of high price, low quality products which were most unlikely to prove internationally competitive.

Another important result was the spatial concentration of production. The closed-market policy led to industry being sited mainly near its market outlets and in areas equipped with an adequate industrial infrastructure. Lima is the principal domestic market for industrial products and the one which has the best infrastructure; the result of this was a greater centralization of industrial activity.

In short, import substitution in its second stage, with closed markets, achieved an industrial growth which was transitory, inefficient, not very absorbent of labour, having little inter-industry integration, centralized and exclusively geared to the domestic market.

INDUSTRIALIZATION ON THE BASIS OF COMPARATIVE ADVANTAGES

Background

The exhaustion of the import substitution model was confirmed in the second half of the past decade. The economic crisis of that period, which particularly affected the external sector, forced a drastic policy of fiscal austerity with a heavy devaluation of the currency. These factors, in conjunction with specific incentives for export industry, succeeded in increasing industrial exports to a significant degree, thus marking the beginning of a change of course in the industrial development model.

During 1979 a start was made with the process of liberalizing industrial imports by withdrawing the principal protectionist measure, the National Register of Manufactures. At the same time there was a drastic reduction of the prohibitive para-tariff mechanisms, with a freeing or lowering of tariff rates and the abolition of their application by locality, type of producer, type of product and product destination. Before this reform the arrangements for industrial protection were so complex and were subject to so many exceptions that it was impossible to calculate what the effective protection of each activity was; paradoxically, greater theoretical protection tended to bring with it an increase in the customs exemptions accorded on the basis of quotas or licences to the various groups able to exert pressure.

During 1980 almost all para-tariff mechanisms were abolished and a maximum customs tariff of 60% was instituted. Early in 1981 the system of incentives for industrial exports was standardized. The attainment of a uniform tariff was adopted as a long-term objective. Recently additional tariff measures have been adopted for the dual purpose of making the tariff more uniform and of generating more tax revenue.

All these measures have helped to make the protection of industry more transparent and to develop it in a context of markets open to international trade.

It must also be pointed out that, as part of the policy of combating inflation and achieving external equilibrium, a system of mini-devaluations of the currency has been adopted so as to maintain the equilibrium value of the currency in the presence of inflation; soles interest rates have likewise been readjusted to bring them into equilibrium with inflation.

Industrial policy and the current industrialization strategy

The reorientation of industrial policy, marked by the opening-up of trade, tariff standardization, the elimination of para-tariff mechanisms and the uniform promotion of industrial exports was consolidated in a new Industries Act adopted by the Congress of the Republic in May 1982.

The central objective of industrial policy is to achieve an accelerated, efficient and stable growth of industrial production. This growth must satisfy two conditions: it must be extremely labour-intensive and it must be decentralized.

In a country with a small market like Peru, it is indispensable to have an open industrial development model, since world markets are the natural outlet for an accelerated and stable expansion of national industrial production. Opening the country up to imports of industrial products is the most efficient and economical way of promoting exports of them, since it improves the relative profitability of exporting, while the fierce competition improves the price and quality of national products.

The opening up of trade, together with tariff standardization, is the necessary prerequisite for the long-term adaptation of the industrial production structure to make the most of the comparative advantages, whether national or regional, which the country possesses in relation to the rest of the world. After a decade of extreme protection, sufficient time has elapsed for nascent industries to mature and for dynamic medium-term comparative advantages to emerge.

The re-arrangement of the industrial structure on the basis of comparative advantages implies that those factors of production which are relatively abundant in the country will be used with greater intensity. This guarantees a more extensive utilization of the enormous pool of unskilled labour and a rational exploitation of regional natural resources.

An important corollary of this pattern of industrial development is that it encourages decentralization, since industrial sites are chosen on the basis of their proximity to ports providing export market outlets and to the natural resources to be processed, with the result that the enormous Lima market is not such an important consideration when industrial sites are selected. The spatial distribution of export-oriented factories producing yarn and textiles from natural fibres furnishes an interesting example of this.

Another important corollary of the proposed pattern of industrial development is the development of labour-intensive industrial enterprises using little capital. This implies that special emphasis must be placed on the development of small-scale industries, which require little fixed capital - a scarce resource in Peru - and are highly labour-intensive.

The system of incentives offered under the new Industries Act has basically three objectives: industrial growth, decentralization, and the development of small-scale industry. The tax credit for reinvestment, which is the main incentive for industrial growth, does not distinguish between industrial sectors; it does, however, make distinctions in respect of geographical location, being higher for areas farther away from Lima. Small-scale industry is promoted through the elimination of specific taxes and directly through the promotion of small-scale activities.

Thus a substantial change-over is under way from the sectoral priorities established by the previous Act to priorities in terms of size and siting established by the present Act.

In short, the industrial development strategy consists in promoting export industry and exploiting comparative advantages in different regions. In this way it will help to generate productive employment on a massive scale and a rational and balanced exploitation of natural resources. This basically labour-intensive industrialization process will generate an expansion of the domestic market which will eventually lead to more balanced industrial growth.

The adjustment process: structural adaptation to open industrial development

In the previous section an attempt was made to delineate a long-term industrial structure consistent with rapid, efficient, labour-intensive and decentralized growth. We now go on to study the transitional process leading to this structure, starting from a position of extreme import substitution.

The best moment for initiating and/or intensifying the transition towards open industrial development is a time of accelerated growth of producton and expanded demand, combined with a solid balance-of-payments situation and a foreign exchange policy which maintains the rate of exchange at its real value. This is what occurred in the country during 1979, when the economy was recovering from a deep recession, raw material exports were flourishing and a realistic foreign exchange policy had been adopted.

The liberalization process accordingly began in 1979: the market was opened up, tariffs were relatively standardized and export incentives were instituted, all within 20 months. The change was drastic and was concentrated in the market for industrial products and inputs; at the time, however, it had few negative side effects, owing to the favourable economic conditions in which it was carried out.

Shortly after the completion of this stage of liberalization the economic environment became unfavourable, the international situation deteriorated, and the GDP growth rate fell. An external imbalance accompanied by a recession appeared in 1981 and became more acute in 1982. This was drastically reflected in industrial growth, which passed from an increase of 5.2% in 1980 to stagnation in 1981 and to a decrease of 2.5% in 1982 (see annexes, Table 2).

This industrial performance in an open market context is partly explained by the domestic and external recession, but certain policy factors also helped to make it more acute.

In the first place we must point out that, at the beginning of the liberalization process, the market for industrial products was not the only closed market. The financial market was severely restricted, the labour market was subject to considerable distortions, and the investment market was hampered by a heavy tax burden and by management difficulties derived from the industrial co-ownership system, which made straightforward operations extremely difficult. We must further add that taxation, especially direct taxation, was theoretically very high and was also subject to a series of exemptions in all the above-mentioned markets. Nothing, however, was done and liberalizaton was concentrated exclusively in the market for industrial products and inputs, with the financial, labour and investment markets remaining distorted. Direct taxation underwent only a few cosmetic changes. This situation obviously raised the costs of adjusting to the new situation of international competition.

In parallel, the foreign exchange policy pursued was also not very sound. There was an appreciable readjustment lag, especially during 1981 precisely at a time when macro-economic conditions were deteriorating and when what was most required was a real increase in the exchange rate in order to make effective provision for the adjustment process at the beginning of a domestic recession.

The impact on employment and on the utilization of installed industrial capacity was significant, especially during 1982. The impact on private investment was also extremely negative, with repercussions on medium-term investment expectations.

This brief experience of an open market policy suggests a few reflections which we will set out below.

First, given the cyclic nature of economic evolution, it is appropriate to begin the process in times of economic expansion, but it is at the same time necessary to be flexible in its application in times of recession.

Second, the process of opening up the industrial market cannot be isolated from a process of general liberalization of the economy. An efficient structural adaptation in industry requires balanced exchange rates and credit at real interest rates that are positive but at the same time low (competitive); it also requires a labour market with extensive mobility and a drastic reduction in taxation on investment, as well as freedom of business management.

Third, the process of opening up trade requires reciprocity on the part of the industrialized countries. The latter are the immediate potential markets for Peruvian industrial exports; they are industrially mature countries. So it is essential that they should eliminate restrictions on imports of manufactures from the developing countries.

Fourth, structural adaptation needs a very big investment effort, since it requires investment for the adaptation of existing industries and new investment in those areas in which comparative advantages are available. To obtain such investment from private sources is difficult because liberalization implies a fall in the profitability of a large part of established industry, which represents the bulk of historical investment.

This situation calls for an active participation of the State to promote investment. In this context it is possible to act effectively and simultaneously at three levels. First, full support must be given to investment in small-scale industry, formalizing its links with large-scale national and international industry and developing efficient technologies appropriate to its scale of production without neglecting to provide full support and advisory services for small businessmen. Second, decisive support should be given to existing industry requiring structural adaptation by providing it with financial and tax facilities, by supplying technological information and by helping it to win external markets for its products. Then intensive steps must be taken to attract foreign investment by exploring new markets for foreign investors, especially those from medium-scale industries in the industrialized countries. In this context industrial redeployment and joint ventures are nimble and effective mechanisms which help to redefine the international division of labour in a context of changing international conditions.

Finally, it must be emphasized that the attainment of an efficient adaptation at minimum social cost in terms of non-utilization of resources requires that the State should play a role that is very active but radically different from that in which the State is the principal entrepreneur and at the same time the principal controller and overseer of private enterprise. The State must basically promote private investment in general, without intervening in decisions relating to production, investment and pricing; it must lay down simple, stable and uniform rules in the field of taxation and establish equitable rules for the functioning of the labour markets. The State should also play a very active role in creating the industrial infrastructure in accordance with siting policies designed to achieve a spatially balanced industrial development.

Peruvian industry is in a very good position to exploit the country's comparative advantages, despite the persistent attempts to go against them. Industrial development, however, does not occur by spontaneous generation; it ultimately needs substantial State support.

TABLE 1. PERU: INDEX OF PHYSICAL VOLUME OF MANUFACTURING OUTPUT
(1973 = 100.0)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
TOTAL MANUFACTURING SECTOR	86.1	93.1	100.0	111.7	117.2	122.7	118.0	113.9	118.2	124.4	124.0	120.9
MITI MANUFACTURING SECTOR	81.3	91.7	100.0	110.0	117.8	121.7	112.0	105.7	106.6	115.7	116.3	111.7
FISH MEAL INDUSTRY	456.5	212.9	100.0	213.9	167.3	206.6	114.8	154.5	161.6	108.5	113.2	152.5
31. FOOD, BEVERAGES AND TOBACCO	88.3	92.7	100.0	112.6	117.5	121.4	116.8	108.3	113.3	119.5	119.6	119.9
311-12 Food products	88.9	95.4	100.0	106.4	107.9	105.8	105.5	101.2	101.3	101.7	101.1	98.5
313 Beverages	83.6	88.7	100.0	121.3	132.6	147.3	134.9	120.1	131.3	145.2	143.5	147.3
314 Tobacco	81.9	92.0	100.0	116.5	117.9	117.2	116.3	106.1	116.7	128.4	137.5	141.7
32. TEXTILES, CLOTHING AND LEATHER	99.5	98.8	100.0	103.7	104.1	111.3	95.1	98.3	102.2	100.5	96.2	88.4
321 Textiles	101.5	98.5	100.0	101.4	102.5	110.3	97.8	106.4	113.4	108.0	107.8	100.2
322 Clothing	90.1	101.1	100.0	111.7	110.8	102.5	92.2	73.4	68.2	72.2	51.8	-
323 Leather and hides	104.7	95.0	100.0	102.1	120.8	120.0	91.1	88.9	85.1	102.3	96.7	-
324 Leather footwear	95.6	99.3	100.0	110.4	101.4	126.7	81.0	76.0	72.1	80.4	73.6	57.1
33. TIMBER AND FURNITURE	88.0	91.1	100.0	103.9	113.0	122.8	108.2	101.9	97.4	95.2	88.5	-
331 Timber (excluding furniture)	97.7	109.7	100.0	103.1	97.9	152.2	140.7	138.4	133.2	122.1	122.8	-
332 Furniture	77.3	70.4	100.0	104.7	129.7	89.0	72.1	61.4	57.7	65.3	50.5	-
34. PAPER AND PRINTING	85.4	93.4	100.0	109.1	98.5	102.3	93.9	83.1	72.3	37.3	90.6	78.9
341 Paper and paper products	100.9	99.7	100.0	124.1	103.7	117.4	124.1	105.4	99.6	121.2	112.4	81.7
342 Printing and publishing	75.5	89.	100.0	99.5	95.1	92.5	74.5	68.7	54.7	65.5	76.6	77.1
35. CHEMICALS	72.9	89.3	100.0	109.5	123.2	132.3	126.1	126.9	130.1	143.9	147.1	150.1
351 Industrial chemicals	62.0	86.6	100.0	115.8	130.9	143.2	156.0	167.8	175.5	184.9	184.5	200.0
352 Miscellaneous chemical products	70.5	80.0	100.0	107.0	126.1	137.6	123.1	126.7	113.8	134.4	138.7	136.7
353 Oil refining	83.9	92.0	100.0	108.4	114.9	115.0	115.9	114.0	132.2	136.1	138.8	141.3
355 Rubber products	80.0	91.3	100.0	102.1	112.8	140.0	116.8	101.4	109.5	132.8	129.8	123.7
356 Plastic products	74.9	94.9	100.0	113.5	123.3	121.0	109.2	99.6	114.2	124.9	136.5	141.2

TABLE 1. PERU: INDEX OF PHYSICAL VOLUME OF MANUFACTURING OUTPUT (continued)
(1973 = 100.0)

		1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
36. NON-METAL MINERALS		85.2	93.3	100.0	118.2	126.0	130.0	121.6	112.8	115.0	124.6	127.9	120.7
361	Earthenware and porcelain	58.2	86.8	100.0	110.8	116.7	133.6	148.0	140.3	121.9	114.0	137.4	127.3
362	Glass and glass products	85.8	98.4	100.0	105.0	121.8	134.4	120.6	96.2	114.0	117.6	117.8	132.4
369	Non-metal mineral products	89.5	92.7	100.0	123.8	129.0	127.9	117.4	113.2	114.3	128.7	129.7	115.7
37. BASIC METAL INDUSTRIES		81.3	103.1	100.0	100.6	101.2	104.3	168.9	168.6	193.4	189.1	177.2	175.5
371	Iron and steel	38.8	73.2	100.0	122.4	124.7	104.4	123.3	131.2	138.9	156.0	141.0	112.3
372	Non-ferrous metals	96.5	113.8	100.0	92.9	92.8	104.2	185.1	182.0	212.8	200.9	190.1	198.1
38. METALWORKING AND MACHINERY		69.2	84.8	100.0	109.3	129.3	127.2	112.2	93.5	92.4	114.5	118.4	101.4
381	Metal products	90.6	92.7	100.0	108.0	115.3	109.2	103.6	97.0	92.0	110.8	100.5	94.9
382	Non-electrical machinery	65.1	92.4	100.0	118.9	150.6	151.7	142.1	122.3	134.6	163.1	175.7	136.5
383	Electrical machinery	62.7	80.8	100.0	123.9	149.7	145.7	140.9	125.7	115.1	135.4	153.1	122.1
384	Transport equipment	58.1	77.2	100.0	89.1	109.1	109.7	72.2	38.4	43.4	67.1	63.4	58.8
385	Metering and control equipment	82.0	83.8	100.0	92.5	107.0	127.3	109.6	112.6	98.1	110.5	138.8	-
39. MISCELLANEOUS MANUFACTURING		71.9	83.6	100.0	93.9	110.7	106.4	92.7	84.8	81.3	89.4	83.5	-

1/ Estimate of results of Manufacturing Sector Output Index based on a sub-sample.

Compiled by: MITI Industrial Statistics Office.

TABLE 2: PERU: GROWTH RATES

		71/70	72/71	73/72	74/73	75/74	76/75	77/76	78/77	79/78	80/79	81/80	82/81
TOTAL GROSS DOMESTIC PRODUCT		5.03	1.66	4.27	7.48	4.54	2.02	- 0.06	0.50	4.13	3.84	3.95	0.23
TOTAL MANUFACTURING SECTOR		9.8	8.1	7.4	11.7	4.9	4.7	- 3.8	- 3.5	3.8	5.9	- 0.3	- 2.5
MITI MANUFACTURING SECTOR		15.0	12.8	9.1	10.0	7.1	3.3	- 8.8	- 5.6	0.9	8.5	0.5	- 4.0
FISH MEAL INDUSTRY		-14.5	-53.4	-53.0	2.1	-21.8	23.5	-44.4	34.6	4.6	-34.9	4.3	34.7
31. FOOD, BEVERAGES AND TOBACCO		17.0	5.0	7.9	12.6	4.4	3.3	- 3.8	- 7.3	4.6	8.5	0.1	0.3
311-12	Food products	13.5	7.3	4.8	6.4	1.4	- 1.9	- 0.3	- 4.1	0.1	6.3	- 0.5	- 2.6
313	Beverages	17.9	6.1	12.7	21.3	9.3	11.1	- 8.4	-11.0	9.3	10.6	- 1.2	2.6
314	Tobacco	8.2	12.3	8.7	16.5	1.2	- 0.6	- 0.8	- 8.8	10.0	10.0	7.1	3.1
32. TEXTILES, CLOTHING AND LEATHER		12.7	- 0.7	1.2	3.7	0.4	6.9	-14.6	3.4	4.0	- 1.7	- 4.3	- 8.1
321	Textiles	14.4	- 3.0	1.5	1.4	1.1	7.6	-11.3	8.8	6.6	- 4.8	- 0.2	- 7.1
322	Clothing	14.9	12.2	- 1.1	11.7	- 0.8	- 7.5	-10.0	-20.4	- 7.1	5.9	-28.3	-
323	Leather and hides	10.6	- 9.3	5.3	2.1	18.3	- 0.7	-24.1	- 2.4	- 4.3	20.2	- 5.5	-
324	Leather footwear	- 0.5	3.9	0.7	10.4	- 8.2	25.0	-36.1	- 6.2	- 5.1	15.0	- 8.5	-22.4
33. TIMBER AND FURNITURE		15.8	3.5	9.8	3.9	8.8	8.1	-11.5	- 5.8	- 4.4	- 2.3	- 7.0	-
331	Timber (excluding furniture)	25.6	12.3	- 8.8	3.1	- 5.0	55.5	- 7.6	- 1.6	- 3.8	- 8.3	0.6	-
332	Furniture	4.6	- 8.9	42.0	4.7	23.9	-31.4	-19.0	-14.8	- 6.0	13.2	-22.7	-
34. PAPER AND PRINTING		0.5	9.4	7.1	9.1	- 9.7	3.9	- 8.2	-11.5	-13.0	20.7	3.8	-12.9
341	Paper and paper products	1.5	- 1.2	0.3	24.1	-16.4	13.2	5.7	-15.1	- 5.5	21.7	- 7.3	-27.3
342	Printing and publishing	- 0.4	18.4	11.9	- 0.5	- 4.4	- 2.7	-19.5	- 7.8	-20.4	19.7	16.9	0.7
35. CHEMICALS		15.0	22.5	12.0	9.5	12.5	7.4	- 4.7	0.6	2.5	10.6	2.2	2.0
351	Industrial chemicals	16.3	39.7	15.5	15.8	13.0	9.4	8.9	7.6	4.6	5.4	- 0.2	8.4
352	Miscellaneous chemical products	21.1	23.1	15.2	7.0	17.9	9.1	-10.5	2.9	-10.2	18.1	3.2	- 1.4
353	Oil refining	9.1	9.7	8.7	8.4	6.0	0.1	0.8	- 1.6	16.0	3.0	2.0	1.8
355	Rubber products	0.4	14.1	9.5	2.1	10.5	24.1	-16.6	-13.2	8.0	21.3	- 2.3	- 4.7
356	Plastic products	22.6	26.7	5.4	13.5	8.6	- 1.9	- 9.8	- 8.8	14.7	9.4	9.3	3.4

TABLE 2: PERU: GROWTH RATES (continued)

		71/70	72/71	73/72	74/73	75/74	76/75	77/76	78/77	79/78	80/79	81/80	82/81
36.	NON-METAL MINERALS	22.2	9.5	7.2	18.2	6.6	3.2	- 6.5	- 7.2	2.0	8.3	2.6	- 5.6
361	Earthenware and porcelain	-13.8	49.1	15.2	10.8	5.3	14.5	10.8	- 5.2	-13.1	- 6.5	20.5	- 7.4
362	Glass and glass products	45.2	14.7	1.8	5.0	16.0	10.3	-10.3	-20.2	18.5	3.2	0.2	12.4
369	Non-metal mineral products	21.6	3.6	7.9	23.8	4.2	- 0.9	- 8.2	- 3.2	0.5	12.6	0.8	-10.8
37.	BASIC METAL INDUSTRIES	-17.8	26.8	- 3.1	0.6	0.6	3.1	61.9	- 0.2	14.7	- 2.2	- 6.3	- 1.0
371	Iron and steel	43.2	88.7	36.6	22.4	1.9	-16.3	18.1	6.4	5.9	12.3	- 9.6	-20.4
372	Non-ferrous metals	-22.6	17.9	-12.1	- 7.1	- 0.1	12.3	77.6	- 1.7	16.9	- 5.6	- 5.4	4.2
38.	METALWORKING AND MACHINERY	15.3	22.5	17.9	9.3	18.3	- 1.6	-11.8	-16.7	- 1.2	23.9	3.4	-14.4
381	Metal products	17.8	2.3	7.9	8.0	6.8	- 5.3	- 5.1	- 6.4	- 5.2	20.4	- 9.3	- 5.6
382	Non-electrical machinery	18.6	41.9	8.2	18.9	26.7	- 0.7	- 6.3	-13.9	10.1	21.2	7.7	-22.3
383	Electrical machinery	10.6	28.9	23.8	23.9	20.8	- 2.7	- 3.3	-10.8	- 8.4	17.6	13.1	-20.2
384	Transport equipment	14.4	32.9	29.5	-10.9	22.4	0.5	-34.2	-46.8	13.0	54.6	- 5.5	- 7.3
385	Metering and control equipment	28.3	2.2	19.3	- 7.5	15.7	19.0	-13.9	2.7	-12.9	12.6	25.6	-
39.	MISCELLANEOUS MANUFACTURING	23.1	16.3	19.6	- 6.1	17.9	- 3.9	-12.9	- 8.5	- 4.1	10.0	- 6.6	-

1/ Year 1982: Estimate of results of Manufacturing Output Index based on a sub-sample.

Compiled by: MITI Industrial Statistics Office.

A VIEW OF ECUADORIAN INDUSTRIAL DEVELOPMENT STRATEGIES AND POLICIES by Marcelo Rovayo*

For all practical purposes, the beginnings of industrial planning in Ecuador date back to the period 1954-1960, when a number of concrete steps were taken, the most important of which were the following:

1954: the first analysis of the industrial sector, making it possible to evaluate its behaviour in qualitative and quantitative terms; and

1957: the enactment of the Industrial Promotion Act (Ley de Fomento Industrial), which defined measures, policies and concepts in this area, and which replaced the old Industrial Protection Act of 1921.

Through a series of amendments to the 1957 Act, the decade of the 1960s saw the emergence in Ecuador of a climate that encouraged the allocation of investment capital and other national and foreign resources to the industrial sector, and which led to reforms that were strengthened in the 1970s, through legal instruments and institutions designed to support and sustain the rapid industrial growth achieved over the previous two decades by providing a framework within which to plan and decentralize the work of industrial development and establish the relevant priorities in that effort.

On the basis of the problems identified in this way, policies were formulated through a "Development Plan for the Immediate Future" in 1961, followed in 1963 by the "General Development Plan" for the period 1964-1973, the country's first major effort at comprehensive planning. The implementation of these plans provided the basis for the establishment of a legal and institutional framework in support of industrial development.

Subsequently, in the Comprehensive Plan for Transformation and Development for the period 1973-1977, the Government adopted a more clearly defined and comprehensive approach that stressed industrial development policy for its socio-political economic objectives and as a technical instrument reflecting the political will of the dictatorial Government.

Later, in the democratic Government's National Development Plan for the period 1980-1984, there was a further consolidation of the policies of industrial development, with the legal and institutional system improved and brought into alignment with the increasing requirements and prospects of Ecuadorian industrial development in the light of the socio-economic situation which had characterized the period 1980-1983, and which was mainly the result of external factors. At the present time, this plan has been modified, with certain new objectives incorporated into it and a number of overly ambitious goals deferred.

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* Mr. Marcelo Rovayo , Sub-Director, Direccion Nacional de Desarrollo Industrial, Quito, Ecuador.

Results of the General Development Plan (1963-1973)

During this ten-year period, overall economic growth was 7% in comparison with an average annual growth rate of 28.3% for the mining and petroleum sectors, 8.2% for the manufacturing and service sectors, and barely 2% for agriculture and fisheries.

Noteworthy in this pattern of growth is, on the one hand, the impulse generated in the final years of the plan (1972-1973) by the petroleum sector and, on the other, the virtual stagnation of agriculture, which failed even to keep pace with the natural growth of the population, which in Ecuador has been expanding at the rate of 3.2% a year. Manufacturing industry's contribution to the country's economic development over this period rose gradually but steadily.

Especially since 1963, the Ecuadorian economy has found a new source of momentum in the manufacturing sector, particularly in factory industry. Within the manufacturing sector, factory industry (defined as consisting of establishments employing seven or more persons and having a gross annual production value of over US $ 4,000) grew more rapidly than did craft production and set the pace for manufacturing sector growth during the period 1963-1973. The target of 10.5% set for factory industry in the sectoral programme of the General Development Plan was in fact surpassed.

Encouraged by the liberal provisions of the industrial promotion legislation enacted, the industrial growth achieved during this period required more equipment and machinery as well as larger quantities of materials and supplies, since the industrial enterprises in question operate with imported inputs.

As early as 1973, the favourable effects of the Cartagena Agreement began to make themselves felt on Ecuadorian exports as the country significantly stepped up its exports to the markets of Colombia, Peru and Chile. In 1970, export revenue scarcely totalled $ 481,000, but in 1971, with the start of the liberalization programme, this figure rose to $ 2,361,000, thereafter virtually doubling every year until, in 1976 it had increased by 2,100% over the 1970 level. In 1973, the estimated work-force in the manufacturing sector was put at 267,800 persons, representing 13.1% of the total employed population. The growth of Ecuadorian industry was for all practical purposes concentrated at two development poles, so that in 1973, 77.8% of the manufacturing establishments, 77.8% of the jobs and 81.6% of the production value were concentrated in two provinces.

In a development linked to this process of industrialization, industry was incorporating new and, in many cases, modern technology, almost all of which, it has been observed, was imported from the industrially advanced nations, with virtually no adaptation to our conditions and with no thought given to the existing ratio of production factors in Ecuadorian industry, especially with regard to labour.

COMPREHENSIVE PLAN OF TRANSFORMATION AND DEVELOPMENT (1973-1977)

Situation of the Economy

The annual increase in the GDP was 10.5%, contrasting with the annual figure of scarcely 5.2% for the previous decade, which means that within a far shorter period the GDP had doubled its growth rate.

In decreasing order, the most important contributors to GDP were: agriculture, forestry, hunting, and fisheries, which contributed an average of 22.7%, growing at a rate of 5.3% annually; manufacturing industry, with an average contribution of 16.8% and an annual growth rate of 11.9%; and trade and tourism, with an average contribution of 12.2% and an annual growth rate of 9.1%.

During the first two years of the plan, petroleum accounted for an increasing share of GDP, rising from 8.2% in 1973 to 14% in 1974, after which it declined to 9.9% by 1979. This development put petroleum in fourth place with an average share of 9.4% of GDP over the period.

Industry and its evolution

Despite the problems which it still continues to face - namely, a limited market, inadequate assimilation of technology, substandard worker training, the undersupply of raw materials, poor physical infrastructure, and insufficient financing - the manufacturing sector evolved satisfactorily during this period. This was reflected in the growth of the manufacturing GDP which at 11.9% was higher than that of the economy's overall GDP at 10.5%.

STRATEGIES AND POLICIES FOR THE INDUSTRIAL SECTOR

Strategies

The growth of the economy achieved during the decade of the 1970s was the greatest in the history of the country. The industrial sector played a major role in this success thanks to its stable, sound and well-defined goals, objectives and policies.

The strategy adopted called for the following measures:

- exploitation and processing of natural resources;
- creation of new jobs;
- sectoral complementarity through activities integrated among themselves and with the rest of the economy;
- multipolar development;
- contribution to self-sufficiency and a stronger balance-of-payments;
- accumulation of production capital and national wealth;
- development of exportable industrial products;
- general improvement of productivity at the enterprise and sectoral level; and
- incorporation of new technologies.

These were carried out by the following policies:

- Promotion of a new image of Ecuador abroad;
- participation by Ecuador in the Cartagena Agreement;
- development of basic industries;
- the use of credit as an industrial promotion tool;
- the entrepreneurial mechanism for the promotion of projects in basic industry;
- multipolar national development;
- administrative decentralization;
- promotion of exports of manufactured goods;
- assistance to small-scale industry and crafts; and
- a United Nations assistance project on behalf of the Ecuadorian industrial sector.

The institutional and legal mechanisms for the application of policy developed were:

- industrial promotion legislation;
- regional development legislation;
- regional Finance Company Act; and
- other legal provisions.

Situation in 1980

After reaching 7.1% in real terms in 1976, the growth rate of GDP began to decrease, falling to 6% in 1977 and 5.3% in the subsequent years. This slow-down was due mainly to a decline in the exports of goods and services, a development to which the stagnation of petroleum deliveries abroad also contributed. Meanwhile, growing demand compensated in part for the reduced dynamism of the export sector, but at the cost of increasing external indebtedness, the public sector deficit and the current-account deficit in the balance-of-payments.

In 1980, GDP increased at a rate of 4.3%, which was lower than the figure for the previous year and below the National Development Plan's target of 5.6%.

The expansion of internal demand also decelerated because of the slower expansion of gross internal investment, which grew by 6.5% in 1980, down from 8.6% in 1979 and lower than the increase called for in the Plan. Consumption, on the other hand, maintained its 6% growth rate of the previous year, reflecting the effects of wage increases. Export volume in 1980 increased by only 0.8%, while imports declined by 1.8%, resulting in a favourable trade balance. Nevertheless, balance-of-payments deficits in the public sector and current account remained at unacceptably high levels.

Sectoral development

Throughout the 1970s, the agricultural sector continued to be the main source of employment in the Ecuadorian economy, absorbing a proportion of the economically active population which fluctuated between 53.6% in 1975 and 49.8% in 1980.

In 1980, agricultural production increased by only 3%, but even this was more than the 2% growth of 1979 or the average of 2.1% achieved during the period 1976-1978. This development was due mainly to the prolonged drought which began in 1976.

Coffee and cacao production was below the 1979 levels because of the precarious conditions at the plantations brought about by the irregular rainfall of the previous years.

The industrial sector carried over into 1980 the momentum of the year before, despite problems in the supply of raw materials for certain manufacturing groups. Output in the sector continued growing at the rate of 10%, slightly down from the 10.5% annual growth recorded in the period 1976-1978.

The adoption of new wage scales and the introduction, from October 1980, of the 40-hour working week led to a reaction on the part of small businesses in the form of the intensive use of labour.

Petroleum production in 1980 was 74.7 million barrels, 4.5% below the 1979 figure but above the levels recorded for the period 1976-1978, when output did not exceed 73.8 million barrels.

Fiscal situation

The year 1980 saw a deepening dependence of public sector income on foreign trade performance, that is, on the production and sale of petroleum, the coffee export tax, and import duties.

On 17 February 1981, the Government enacted a package of financial and fiscal measures designed to increase the level of public revenue and make possible the implementation of the country's programmes of economic and social development and national defence. The principal provision of these measures included:

- new prices for petroleum derivatives, public transport, and freight transport within and between cities;
- bills to increase taxes and duties on motor vehicles and cigarettes;
- monetary measures to contain inflation;
- the freezing of prices for essential items; and
- the introduction of the savings and loan co-operatives within the national financial system.

Foreign trade

Among the country's main export products, there were increases in the export value of bananas, sea products, and petroleum and petroleum derivatives; conversely, coffee, cacao and cacao products showed sharp declines. Petroleum continued as the principal export item, accounting for about 62.8% of the total value of sales abroad, in comparison with 54.2% in 1979 and an annual average of 44.5% during the period 1976-1978.

The National Development Plan (1980-1984)

The growth of Ecuadorian industry, one of the most rapidly expanding in Latin America, has begun to reveal the serious limitations of its underlying basis. Principal among these are the following: excessive dependence on foreign sources for raw materials, capital goods, and other inputs; a high degree of underutilization of the installed capacity at industrial plants; lack of co-ordination between the different branches producing intermediate, consumer, and capital goods; a pattern of industrial supply which has in large measure been directed at satisfying the consumption wishes of an elite social class and has, in many cases, been highly diversified; the closed family structure of most of the country's industrial enterprises, a situation which has blocked the democratization of industrial capital; and, finally, the failure to mount a sufficient technological research effort to bring the nation at least a minimum of independence in this area.

STRATEGIES

Conditions of the strategy:

- redistribution of income;
- the Andean Pact (strengthening of the process);
- financing expectations for the industrialization process; and
- behaviour of the rural sector.

Strategic promotions:

- redirection of the domestic supply of manufactured goods;
- selective intensification of the import substitution process, especially with regard to intermediate and capital goods, and the diversification of exports;
- promotion of small-scale industry and crafts; and
- promotion and development of industries linked to the rural sector.

Orientation of the strategy. Policies and instruments of industrial development:

- price regulation and quality control;
- development of basic industry;
- technological development;
- foreign investment; and
- industrial promotion legislation.

Steps will be taken to enact a new Industrial Promotion Act designed to reform radically the present law in the following areas:

- selection criteria;
- systematization and rationalization of the protection of domestic industrial products in the face of the competition of similar foreign products;
- principle of the temporary nature of benefits and incentives;
- special incentives for agro-industrial activies;
- co-ordination of the system of benefits and incentives with the work of the Ecuadorian Capital Goods Commission;
- making the granting of benefits and incentives conditional on compliance with quality standards and the efficient use of the production factors;
- strengthening the mechanisms for channelling internal savings to the financing of industrial activity;
- organizing assembly operations, subjecting them to clear and precise rules aimed at gradually turning assembly operations into manufacturing operations;
- creating machinery to provide incentives for the development of technological research and for personnel training in technical areas at the enterprise level;
- small-scale Industry and Crafts Promotion Act;
- reform of the Consultancy Act; and

reform of the Competitive Bidding and Tenders Act.

- Sectoral commissions on industrial affairs;
- credit policies;
- industrial dispersal;
- training;
- exports;
- monetary and financial policy;
- tariff policy; and
- environmental protection policy.

The original goals contained in the Operation Plan for 1981 were affected by the border conflict in which Ecuador became involved. This conflict led to a reallocation of resources in favour of national defence. Nevertheless, the Government held to its purpose of vigorously pursuing the programmes and projects of the National Development Plan for the period 1980-1984.

EXPERIENCE IN THE APPLICATION OF INDUSTRIAL PLANNING

Ecuador's relatively dynamic industrial growth, with its legal and institutional framework and the protection afforded by a closed market, has included some positive experience in regard to import substitution; unfortunately, this stimulates other imports, such as capital goods, raw materials, capital and technology, etc., which in turn help to raise the level of industry. Of Ecuador's total volume of imports, some 15% go to the manufacturing sector. This questionable process of development has nevertheless allowed some experiments in the export of manufactured goods which in some cases have been successful (25% of total exports), while in other cases the situation continues to be difficult as a result of world economic conditions.

Despite its growth, Ecuadorian industry exhibits the sectoral structure typical of an economy in its earliest stages, in which the production of food, beverages, tobacco, textiles, clothing printing paper and wood accounts for 62.7% of the total.

The extraordinarily rapid increase in the purchasing power of the Ecuadorian population during the 1970s as a result of oil earnings and the possibilities of the Andean Group market acted as a stimulus to industrial growth, which towards the middle of the last decade ranged between 15 and 20% of total annual growth at a time when the country's population grew by some 3.2% and its economy by 7-8%. This industrial growth, with its specific characteristics, inefficiencies, projections and limitations, was enough to satisfy the requirements of the internal market.

The share of industrial output in the GDP of recent years has fluctuated between 15 and 20%. The period 1982-1983, however, has been one of economic depression with clearly recessive characteristics.

So far, the efforts to consolidate and diversify the production system have not succeeded in bringing about inter-industry and inter-sectoral relationships appropriate to our economy's resource endowment or ensuring the benefits aimed at in the objectives of the nation's various development plans.

The Ecuadorian production establishment is highly dependent on external factors, in addition to which it faces certain inherent difficulties arising from the nature of the domestic market, namely - the smallness of the market: of a total population of approximately 9 million inhabitants, 30% are economically active and some 44% live in the towns; high prices and a high percentage of idle production capacity; and an uncompetitive production structure, etc.

Although the State has created conditions favourable for industrial development, its efforts in the area of exports and in terms of integrating the country's resources within the production system have so far not produced the hope for results.

Evaluations of the implementation of the industrial development plans have revealed instances of major failures to meet the targeted goals, due mainly to the limited political support - a situation which is gradually being overcome as certain additional mechanisms are applied and improved in the democratic climate in which the country is now moving forward.

Industrial development planning in the country is still in its infancy. As practical experience is gained, planning is gradually becoming more effective and a sound development process is being consolidated.

FUTURE EXPECTATIONS WITHIN THE COUNTRY

The 1980-1984 National Development Plan is being adjusted through the introduction of corrective factors to take into account current problems, due to events which dictate a change in the direction of development strategy and a fresh definition of policies and objectives.

The principal elements at work in this new situation are:

- the hold-up in the integration process, the effect of which, in some cases, has been to curb intrazonal trade;

- the fall in the prices of Ecuadorian export products (petroleum. coffee, cacao, and industrial goods), plus the restrictive measures introduced because of the worldwide recession;

- the deterioration of the balance of payments to such critical levels that, because of the lack of dollars, the country is unable to pay its outstanding foreign debt and has been forced, twice in the space of 12 months, to devalue the currency, thereby aggravating even further the private sector's external debt and weakening its ability to pay;

- unprecedented levels of fiscal deficit, requiring cuts in current spending and investment; and

- the catastrophic consequences of the unusual flooding of the Coast, which destroyed extensive areas of crops and severely damaged the country's road system.

Nevertheless, despite these unfortunate events, levels of demand have been generated which challenge the country's industrial sector to achive higher levels of output to meet the explosive demand in neighbouring countries for Ecuadorian goods which because of the devaluations have become competitive, reversing traditional trade patterns.

In the knowledge that this crisis can be overcome through increased production and work, the aim is to establish supporting mechanisms to enable industry to direct its products at international markets.

CURRENT SITUATIONS AND EXPECTATIONS OF THE DEVELOPING COUNTRIES

The situation is growing worse and becoming dangerously protracted. The impossibility of financing growing budgetary deficits has paralysed a number of important projects and postponed social programmes essential to the welfare of the people of the developing countries.

The lack of external financing, the sinking of the prices of basic commodities to the lowest levels in the last 30 years, protectionism and trade restrictions have paralysed important production activities in both the public and private sectors.

In all developing societies, underemployment has become a common phenomenon affecting nearly half the population. For decades, the elimination of underemployment has been one of the goals of economic policy, but today not only is this phenomenon still in evidence and growing, but it has been joined by mushrooming unemployment which in some countries has struck at one in every four workers.

Inflation was never a generalized occurrence in the developing world; until quite recently many countries had no experience of this scourge. Today, however, all these nations are facing a continuous escalation in prices, especially for essential items, while those countries which previously had faced some inflation are today suffering from hyperinflation which is eating away at the income of their workers and exacerbating the imbalances in their economies.

These facts have made it clear that we are currently facing an economic crisis of extreme gravity whose ruinous effects may well be even worse than those of the great depression of the 1930s, from which these countries took so long to recover.

The fact is that recovery today is an extremely difficult and complicated task. In the 1930s recourse was had to the expedient of breaking off or at least greatly reducing ties with the external world. Today that expedient is no longer possible as the result of the development of economies and industries which are highly dependent on capital and inputs from abroad.

Governments are pledged to rebalance their economies through what are known as adjustment policies. These policies presuppose the substitution of internal savings for the external savings which were the basis for the development of recent years.

The present crisis cannot be resolved internally through the exclusive efforts of each country. The steps that Governments are taking today to restore balance to their economies will surely fail unless there is international co-operation. This requires:

- the resumption of financing by the private banking institutions;

- the granting by the industrialized nations of contingency credits to help overcome the current lack of liquidity, and of long-term "soft" loans to guarantee the future development of the region;

- **the revitalization of today's stagnant trade flows and the improvement of commodity prices;**

- **the elimination of the protectionist barriers and trade restrictions to which the industrialized nations of the North are resorting with increasing frequency;**

- **the maintenance of reasonable interest rates;**

- **the building up of the resources of the multilateral financing institutions; and**

- **changes in the co-operation on guidelines and arrangements of the international organizations, particularly the International** Monetary Fund.

THAILAND'S EXPERIENCE IN INDUSTRIALIZATION by Somsak Taembunlertchai*

GROWTH AND STRUCTURAL CHANGE

Thailand is a medium-sized country with the area of 514,000 square kilometers and the population of 49 million. With a per capita income of US $ 720 in 1981, the country is classified by the World Bank as a middle-income economy.

Thailand is traditionally an agricultural economy where the agricultural sector contributes significantly to the country's gross domestic product, employment and export earnings. In the past two decades, however, the Thai economy has experienced rapid expansion with significant changes in the economic structure, and the share of agriculture in GDP and export earnings has significantly declined. The annual growth of GDP at constant price from 1960 to 1980 was over 7%, with a particular high growth rate in manufacturing, public utility, banking, and other services. As a result, the share of agricultures in GDP has decreased from 40.5% in 1960 to 25.2% in 1980, despite its respectable annual growth rate of 4.9% (see Table 1).

The growth in the manufacturing sector has contributed significantly to the GDP growth over the past two decades. The share of manufacturing in GDP was 11.7% in 1960, and increased to 15.5% in 1970, and 20.8% in 1980. With a higher growth rate, it is expected that by the end of this decade, the share of manufacturing will outpace that of agriculture in the Thai economy.

In terms of employment, however, the agricultural sector is still absorbing a predominant share of the country's total labour force. In 1980, labour force engaged in agriculture, forestry, and fishery comprised of 70.6% of the country's total labour force, while manufacturing, commerce, and other services occupied 7.9%, 8.5% and 8.4%, respectively. It should be noted, however, that manufacturing employment was only 3.4% in 1960 and 4.0% in 1970. The employment share of manufacturing was thus raised significantly in the past decade and the growth in manufacturing employment during 1971-1980, at 10.3% per annum, was the highest among various economic sectors (see Table 2).

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* Mr. Somsak Taembunlertchai, Associate Professor, Faculty of Economics Thammasat University.

Besides the impressive growth performance, there has also been a significant structural change within the manufacturing sector. Processed food, beverage, and tobacco heavily dominated the sector in the early 1960s. With the emergence of modern import substitution industries, including petroleum refining, transport equipment, electrical goods, and other non-durable consumer goods, and the expansion of non-traditional manufactured exports, including textiles, garment, and electronic products in the 1970s, the share of food, beverage, and tobacco has been significantly diminished (see Table 3).

As an open economy, the change in the structure of production in Thailand has been accompanied by the change in the country's foreign trade structure. In imports, the share of consumer goods has constantly been reduced and that of capital goods, intermediate products and raw materials, and other imports (which comprised mainly of oil, and motor vehicles and parts) has increased significantly over time (see Table 4).

In sub-category, the share of non-durable consumer goods in total imports decreased steadily from 32.2% in 1961 to 6.3% in 1980. For consumer durables, the share in total imports decreased rapidly only during the 1970s. For intermediate products and raw materials, those chiefly used for the production of consumer goods increased during the 1960s, and the share decreased somewhat in the 1970s; while those chiefly used for capital goods remained relatively stable over the 1970s. The same trend can also be observed in capital goods imports, where the share increased in the 1960s and decreased somewhat in the last decade. The change in relative share of imports in different categories has obviously been influenced by the increase in oil import bills since 1973. The change in the import structure, however, tends to indicate that import substitution in consumer nondurables was achieved first together with the increase in imports of capital goods and intermediate products. It was then followed by import substitution of consumer durables and some backward-linkage import substitution in producer goods over the last decade.

The structure of exports has also changed much during the course of industrialization. In the early 1960s, primary products comprised over 80% of the country's total merchandise export value. During the past decade, manufactured exports have grown rapidly and the share of manufactures in export value reached 35.8% in 1981 (see Table 5).

The export expansion in manufactures has been accompanied by increasing diversification of exported commodities. Besides traditional primary products, a number of manufactured products have emerged as the country's principal exports over the past decade. Among these are textiles, garments, jewelery, and integrated circuits, which are labour-intensive in nature. There are also a significant number of minor export items with very high growth rates during the past years. Among them are various resource-based and labour intensive items such as different types of food products, footwear, wood products and furniture, and other consumer items. By and large, resource-based and labour intensive industries have occupied significant shares in industrial exports, and have also achieved high growth rates. We can thus say that the expansion of manufactured exports from Thailand has so far been achieved along the line of the country's comparative advantage in abundant natural resources and labour.

INDUSTRIAL DEVELOPMENT POLICY

The industrialization process in Thailand in many ways resembles that of other development countries. Social overhead facilities were built and capital equipment was imported using the foreign exchange acquired from foreign aids and loans, direct investment, and from the earnings of agricultural exports. The First Economic Development Plan, started in 1961, emphasized the role of industrial investment by private enterprises with the government providing incentives and supporting facilities. A policy of import substitution, facilitated by protective tariffs and investment incentives under the industrial investment promotion scheme, was adopted in the early 1960s. After a decade of import substitution, attempts were made on the promotion of manufactured exports during the 1970s.

The tariff structure in Thailand was revised several times since 1960. Tariff rates on imported consumer and intermediate goods which could be produced locally were appraised to give protection to domestic industries. The official investment promotion programme administered by the Board of Investment, which provides tax exemption to capital equipment and raw materials, and income tax holiday, also renders substantial incentives to industrial firms under the official promotion, which are mostly modern and large-scale firms.

In the early 1960s, partly due to the drive for modernization, capital intensive industries were given high priority in the investment promotion programme. But most modern industries attracted to the country were assembly type industries like automobiles and electrical appliances, with almost all parts and components imported. Other important industries covered in the promotion programme were textiles, tin smelting, and various chemical and metal products.

By mid-1960, it was realized that the promoted industries were mostly with high import content and provided little linkage effect. The Second Development Plan (1967-1971), while continuing to give importance to industries producing for the domestic market, also started to pay some attention to industries utilizing domestic materials and labour. The official investment promotion programme, which previously gave high priority to capital intensive and assembly industries using imported materials, was modified toward a reduction of incentives to these industries.

The strategy of promoting manufactured exports started in the Third Development Plan period (1972-1976) and continued until the present time. Various incentives were provided to exporters, partially offsetting the bias in the tariff structure which has been in favour of import-competing and against export-oriented industries. The major incentives for exporters of manufactures are the rebate of import duties and business taxes on inputs, and short-term loans with preferential interest rates. The investment promotion law was also revised to give more incentives to export industries.

In 1975, an Export Service Center under the Ministry of Commerce was set up to provide information to exporters and potential importers of Thai products. The Board of Investment also extended promotional privileges to large-scale trading companies engaged in exporting in 1978.

In the Fifth Development Plan (1982-1986), the industrial development policy is seen to emphasize the activities compatible with the country's perceived comparative advantage. An industrial restructuring programme has been introduced aiming at promotion of labour-intensive, resource-intensive, and export-oriented industries. Plans will also be set toward reducing the level of protection to a number of inefficient import-substitution industries. In addition, small and medium-scale industries and industries located in provincial areas will be given more attention by the government.

A new element in industrial development during the 1980s is the development of the Eastern Seaboard. With the discovery of natural gas in the Gulf of Thailand, plans for development of industries using natural gas and its by-products along the Eastern coast of the country have been drawn up. The development of light and export-oriented industries and the setting up of an EPZ in the Eastern Seaboard has also been considered.

PROSPECTS FOR FURTHER GROWTH

The prospects for further export expansion for Thailand depend on a number of factors: recovery in the world economy, particularly those in industrialized countries which are Thailand's major trading partners: the successfulness of further diversification in export markets and commodities, which depend much on marketing efforts; the increased competition from other developing economies; and the input conditions in Thailand. It is not certain that the rapid export expansion experienced by Thailand in the 1970s could be repeated in the 1980s.

Faced with stagnation in their domestic economies, industrialized countries all over the world became more protectionistic in the 1970s. The protectionistic trend has been continued in recent years. It is expected that slow growth in industrialized countries will continue and various forms of trade barriers, particularly those made on labour intensive products, will not be reduced in the near future. Thailand has so far been benefited as a marginal exporter for most manufactured products. But for some products like textiles and garments, maintaining the growth trend of the 1970s will be difficult, as the renewed Multi-fibre Agreement (MFA) tends to put more restrictions on suppliers of textile products. Besides the trade restrictions, Thailand will also be faced with increasing competition from other developing countries which are keen to promote their labour intensive exports. Whether Thailand will lose out or not will depend much on the productivity improvement in this sector.

Besides labour intensive products, the other major type of industrial exports from Thailand is processed primary commodities. This also depends heavily on industrialized country markets. Besides the tariff structure which tends to discriminate against the imports of processed commodities, there are also quantitative restrictions imposed on certain resource-based products of interest to Thailand, such as sugar and tapioca products.

On the supply side, the availability of raw materials to resource-based commodities is an important factor for the continued growth of processed commodity exports. Over the past two decades, the agricultural sector has grown at a respectable annual growth of 5%, giving significant support for growth in other economic sectors. The productivity of the agricultural sector has, however, not improved much as the passage of time, and increased production has been made possible largely by the expansion of cultivated land areas. Further expansion of arable land will become more and more difficult in the coming decade. Other resources, including forestry and fishery, are also facing the problem of depletion. If Thailand is to continue to enjoy comparative advantage in processed primary commodities, there will be an urgent need for conservation and development of available resources, and improvement of productivity in the primary sector.

Besides the expansion of manufactured exports, another alternative for further industrial growth is through the development of second-stage import substitution industries, i.e. import substitution of producer goods. Experiences in other developing countries tend to indicate that import substitution of producer goods are much more difficult than that of consumer products, and substantial capital, technology, and skilled manpower will be needed. Given the constriants on manpower, technology, and financial resources, it is not likely that the import substitution of producer goods will be as rapidly achieved as that experienced in the consumer goods industries.

Despite the rapid increase in manufactured exports, Thailand's industrial products still depend much on the domestic market. The export-output ratio in 1980 was around 20%, which means that the major outlet for Thailand's industrial products is still the domestic market. The increase in domestic income is thus helpful for the domestic market oriented industries. Since low-income people consume largely simple products that are produced locally, the improvement of income distribution in favour of low-income groups will be helpful to create increased demand for locally produced and consumed industrial products. The rural development programme and the development of small-scale and cottage industries in rural areas specified in the Fifth Development Plan, if successfully implemented, could significantly contribute to the growth of the industrial sector.

The future course of industrial development in Thailand will also depend on the development of new natural resources, particularly on the exploitation of natural gas already discovered, and possible discovery of oil in the North and the Northeast. Heavy industries like petrochemicals will be developed. But hasty development of heavy industries will incur substantial costs to the economy and may result in the development of industries that are not sufficiently competitive, albeit the availability of natural gas as fuel and raw materials. The Republic of Korea's experience of putting massive investment in petrochemical and other heavy industries during the 1970s, which has caused much problem to the economy of the Republic of Korea, should provide a good lesson to Thailand and other developing countries which are eager to develop their heavy industries when they are not really ready to do so.

Given the constraints on manpower and financial resources, the Thai Government has put much hope on foreign direct investment for further industrialization, particularly on the development of industries along the Eastern Sea Board. Past experiences, however, show that the incoming of foreign direct investment has not been an unmixed blessing for the Thai economy. Foreign invested firms are in general heavily dependent on imported inputs, and the extent of technology transfer seems to be quite limited. The lack of effective technology transfer in industrial sectors is partly due to the lack of attention of the government in the technological aspects of industrial development, and the resulting lack of capacity in the part of Thai industrialists to absorb technology.

Experiences in Japan, and in a number of newly industrializing countries, show that the existence of well educated manpower, further training of skilled workers, and development of technology are among the most important factors for successful industrial development. The development of second stage import substitution in certain intermediate and capital goods industries will be proceeded in Thailand in the coming decade. Exported manufactures, while still using extensively locally available raw materials, and un-skilled or semi-skilled labour at present, will also need to be upgraded in quality. All these imply that the development of skill and technology is of utmost necessity. It is thus essential that policy measures be adopted and institutions be set up to facilitate the upgrading of technical and skill level in the industrial sector. The experience of Japan and Asian NICs in upgrading the technology and skill for their indigenous sector and effective acquisition of foreign technology can be a valuable lesson for Thailand and should therefore be carefully studied.

LESSONS FROM THAILAND'S INDUSTRIALIZATION EXPERIENCE

We have so far focused more on the positive side of Thailand's industrial development. It should not be misled that Thailand's industrial growth has not been achieved without pains. As a matter of fact, the Thai economy was confronted with a number of serious economic and social problems, some of which are the results of mistakes made in the process of industrial development. The protection induced import substitution strategy was helpful in making a quick start on industrialization as there existed a domestic market large enough for the setting up of domestic production. A number of foreign firms were also induced to invest in the import substitution industries in the 1960s. The high protection given to a number of import substitution industries have encouraged excess entries and resulting excess capacity. The tax exemption on capital equipment and intermediate inputs also encourage the setting up of industries with high import content and contribute to the country's trade deficits. The protection induced import substitution also have had a side-effect of leading to the concentration of industrial activities in Bangkok and surrounding provinces, and resulting to various economic and social problems such as traffic congestion, air pollution, and increasing crimes in the city.

The policy of putting more emphasis on the development of large-scale import substitution industries also lead to the imbalance in the country's industrial structure, where the majority of industrial enterprises - which are small-scale - have been discriminated against by the tariff and tax structure and by other pricing policies. They also have been lagging behind in technology and skills and development in other aspects.

Thailand's merchandise trade balance has been in deficit for every year since 1957, and the trade gap widens as time passes. During 1979-1981, annual trade deficit averaged US $ 2,475 million, representing 43.9% of the country's merchandise export earnings. As deficits in the current account have become larger over time, Thailand has to increasingly rely on foreign loans to compensate the deficits. The situation in the balance-of-payments will become a constraint on the country's industrial development in the 1980s.

In the turbulent decade of the 1970s, Thailand was also confronted with the problem of economic instability similar to that experienced in other developing economies. The price level has increased appreciably, particularly during 1974-1975 and during 1979-1081, following the two energy crises. The average annual rate of inflation measured by the consumer price index was less than 2% during 1960-1970, and accelerated to 10% during 1970-1981. The worldwide recession and the low prices on primary commodities has also led to a mild recession in the Thai economy in the past few years. But real GDP still grew at an annual rate of around 6% during 1979-1982, comparing favourably with other developing countries.

A more basic problem for the Thai economy is the increasing disparity of income distribution. The average per capita income of the population in Bangkok and of those in the central provinces was 6 and 3.5 times higher, respectively, than of those in the Northeast in 1979. This compares with the corresponding difference of 5.2 and 2.4 times in 1960. With the increase in income as the result of economic growth, the proportion of population living in absolute poverty (defined to be with the annual income of US $ 90 in 1975/1976 prices per person in rural areas and US $ 120 per person in urban areas) declined from about half in the early 1960s to a quarter in 1975/1976. These figures, however, imply that more than 12 million people in the country remain in absolute poverty despite the rapid economic growth. Most of the very poor people are residents of the rural areas in the North and Northeast regions of the country. There are also severe disparities in education and health facilities and personnel among different regions of the country. A rural development programme has been planned in recent years, and the poorest districts in the North and Northeast regions have been identified for the government to concentrate on rural development projects in these areas. To what extent the rural development programme would help to alleviate rural poverty remains to be seen.

From what has been described above, we have seen that Thailand's industrial development process have gone through the stage of import substitution and export expansion. The protection induced import substitution have created quite a number of problems to the Thai economy, including chronic trade balance deficit, concentration of industrial location, and structural imbalance and inefficiencies in the industrial sector. Export expansion of manufactures in the 1970s, on the other hand, enabled the country to achieve continued growth in the industrial sector.

The success in export expansion has been achieved mainly through the utilization of the country's perceived comparative advantage. Expanding exports of manufactures, which comprised mostly of labour-intensive and resource-based products, also enabled the economy to transform surplus labour in the agricultural sector to the industrial sector, and make fuller use of available resources.

Further growth of manufactured exports, however, will be constrained by various factors. It is thus necessary for the government as well as the private sector to try to improve the efficiency of the export sector in various aspects. Increase in subsidies to export industries should be avoided, since this will tend to retard the efficiency of the industries in the long run.

Economic growth in Thailand over the past two decades has been achieved with relative price stability and with little constraint on the balance-of-payments as compared to most other developing economies. However, increased spending in both public and private sectors together with the oil price increase have led to worsening trade and current account deficits, and increased dependence on external finance. This worsening trend in the country's external balance cannot be continued forever, and measures have to be taken to correct the trade and current account deficit. Attention should also be paid on price stability as experiences in many developing economies show that rapid inflation tends to disrupt seriously the process of economic development.

More importantly, the effect of industrialization and economic growth on income distribution should not be ignored. It is hard to imagine that a country with a large proportion of people in the country is living in poverty, and their children are with low education and poor health will become an industrialized economy in the future. In the 1980s and beyond, technology will be a decisive factor on industrial development. Those countries which are not keen to develop their technology and manpower will eventually be defeated in the battle of industrialization. It is thus necessary that the technological aspect of industrial development be taken with more consideration by the government, and every effort will be made on the development of well qualified manpower.

Table 1. GDP Share and Growth Rate by Economic Sectors*

	GDP Share (%)			Average Annual Growth Rate (%)		
	1960	1970	1980	1960-70	1970-80	1960-80
Agriculture	40.51	32.20	25.19	5.38	4.43	4.90
Mining and Quarrying	1.23	1.70	1.55	11.99	5.87	8.50
Manufacturing	11.74	15.54	20.76	10.87	10.17	10.52
Construction	4.79	5.80	5.24	9.85	5.94	7.88
Electricity and Water Supply	0.30	1.09	1.83	23.11	12.93	17.91
Transportation and Communication	6.68	6.13	6.35	6.94	7.41	7.18
Wholesale and Retail Trade	15.84	17.67	17.00	8.99	6.62	7.79
Banking, Insurance and Real Estate	1.87	3.87	5.68	16.13	11.22	13.65
Ownership of Dwellings	2.98	2.00	1.49	3.63	3.90	3.77
Public Administration and Defense	4.56	4.31	4.19	7.34	6.67	7.01
Services	9.50	9.69	10.72	8.02	8.13	8.08
Total	100.00	100.00	100.00	7.82	7.03	7.43

Source: NESDB, National Income of Thailand, various issues.

* Calculated from GDP value at 1972 prices.

Table 2, Employment by Economic Sector

	Percentage Distribution		Growth Rate	Distribution to Growth
Economic Sector	1971	1980	1971-80	1970-80
Agriculture, Forestry, and Fishery	78.77	70.61	1.81	46.27
Minering and Quarrying	0.57	0.44	0.40	0.07
Manufacturing	3.95	7.90	10.33	19.72
Construction	1.13	1.93	8.59	4.32
Electricity and Water Supply	0.17	0.26	7.09	0.51
Commerce	7.07	8.47	4.81	12.66
Transportation and Communication	1.27	2.02	7.76	4.24
Service	7.02	8.36	4.75	12.37
Others	0.05	0.01	-25.40	-0.16
Total	100.00	100.00	100.00	100.00

Source: Department of Labor Ministry of Interior.

Table 3. GDP Share and Growth Rate by Industry in the Manufacturing Sector*

Industry	GDP Share (%)			Average Annual Growth Rate (%)		
	1960	1970	1980	1960-70	1970-80	1960-80
Food	34.64	20.53	14.19	5.27	6.15	5.71
Beverages	10.57	12.99	11.78	13.23	9.07	11.13
Tobacco	13.01	10.27	7.15	8.33	6.22	7.27
Textile	5.20	9.23	13.41	17.47	14.33	15.89
Wearing Apparel	8.01	4.68	9.07	5.11	17.68	11.22
Wood & Cork	4.79	3.14	1.64	6.35	3.20	4.76
Furniture & Fixture	1.18	1.31	0.61	12.13	2.04	6.97
Paper & Paper Products	0.21	0.73	1.58	25.97	18.98	22.42
Printing & Publishing	3.20	2.21	3.06	6.91	13.77	10.29
Leather, Leather Products	0.59	0.99	0.50	16.82	2.81	9.59
Rubber & Rubber Products	0.55	1.60	2.74	23.31	16.22	19.71
Chemical & Chemical Products	6.83	6.32	7.97	10.07	12.71	11.38
Petroleum Refining	0.01	6.04	4.81	106.53	7.65	49.11
Non-Metallic Mineral Products	2.89	5.05	5.72	17.25	11.53	14.35
Basic Metal Industries	0.43	1.68	1.15	26.97	6.09	16.06
Metal Products	0.39	2.11	1.07	31.45	2.91	16.31
Machinery	0.58	2.29	1.80	27.24	7.51	16.96
Electrical Machinery & Supply	0.60	1.36	2.02	20.32	14.55	17.40
Transport Equipment	5.42	5.13	7.80	10.33	14.84	12.56
Misc. N.E.C.	0.90	2.34	1.93	21.98	8.02	14.79
Total	100.00	100.00	100.00	10.92	10.13	10.53

Source: NESDB, National Income of Thailand, various issues.

* Calculated at 1972 prices.

Table 4. Distribution of Imports by Economic Classification

Type of Imports	1961	1966	1971	1976	1981
I. Consumer Goods					
A. Non durable	32.20	17.74	10.75	7.82	6.30
B. Durable	7.27	8.20	7.13	5.36	4.36
Total consumer goods	39.47	25.94	17.88	13.18	10.66
II. Intermediate Products & Raw Materials					
A. Chiefly for consumer goods	10.87	14.04	18.78	17.54	15.61
B. Chiefly for capital goods	6.99	7.65	10.40	10.76	9.14
Total intermediate product & raw materials	17.86	21.69	29.18	28.30	24.75
III. Capital Goods					
A. Machinery	13.35	18.03	21.69	18.12	16.99
B. Others	11.97	13.34	10.74	9.04	9.35
Total capital goods	25.32	31.37	32.43	27.16	26.34
IV. Other Imports					
A. Vehicle & parts	7.96	10.12	8.23	7.24	4.40
B. Fuel and Lubricants	10.06	10.30	10.23	23.37	30.14
C. Others	-0.67	0.58	2.06	0.75	3.71
Total of others	17.35	21.00	20.52	31.36	38.25
Grand Total	100.00	100.00	100.00	100.00	100.00

Source: Bank of Thailand Monthly Bulletin, various issues.

Table 5. Exports by Economic Sectors

Economic Sector	1961	1966	1971	1976	1981
1. Agricultural Products	8,264.3 (82.67)	10,835.0 (76.85)	10,812.2 (62.57)	31,515.8 (51.82)	72,998 (47.7)
2. Fishery Products	40.3 (0.40)	246.7 (1.75)	495.7 (2.87)	2,707.1 (4.45)	6,632 (4.3)
3. Forestry Products	330.1 (3.30)	305.0 (2.16)	265.8 (1.54)	1,055.9 (1.74)	143 (0.1)
4. Mineral Products	655.6 (6.56)	1,629.6 (11.56)	2,364.0 (13.68)	4,112.8 (6.66)	11,814 (7.7)
5. Manufacturing Products	239.4 (2.39)	530.0 (3.76)	1,731.5 (10.02)	15,819.9 (26.02)	54,743 (35.8)
6. Others	464.6 (4.65)	553 (3.93)	1,611.9 (9.33)	5,660.2 (9.31)	2,632 (6.7)
Total	9,997.0	14,099.3	17,281.1	60,872.09	148,962

Note: Value in million baht. Figures in parentheses are percentage to total exports.
* Including re-export

Source: Bank of Thailand

Background Documentation of the Policies of Individual Developed Countries toward the Developing Countries

THE CHANGING INTERNATIONAL POSITION OF U.S. MANUFACTURING AND U.S. INDUSTRIAL POLICY: IMPLICATIONS FOR LATIN AMERICAN INDUSTRIALIZATION (a summary) by Peter B. Evans*

The principal aim of this report is to examine the ways in which recent changes in the international position of U.S. manufacturing are likely to be reflected in future U.S. industrial policy and how, in turn, such policy is likely to affect the prospects of Latin American countries struggling to industrialize in the face of the currently unfavourable condition of the global economy. The main vehicle for the analysis is a set of three case studies of specific industries: steel, electronics and petrochemicals. Steel is an industry which is clearly declining in the U.S. and facing difficult problems of over-capacity worldwide. Electronics is an example of an industry in which the U.S. is likely to place substantial hopes for the future. Petrochemicals is an intermediate case, one in which the comparative advantage of the U.S. is likely to erode, at least in important segments of the industry, but which is currently a strong competitor internationally. Together they illustrate a range of sectoral problems to which U.S. policy must respond.

Current U.S. industrial policy might be labelled 'passive, ad hoc protectionism'. It has been shaped by the combination of three contradictory pressures. First, deep seated ideological resistance to an active governmental role in industrial development has all but eliminated any possibility of positive adjustment. Secondly, the serious social and economic problems caused by the declining international competitiveness of basic U.S. industries have created strong pressures for protectionism. Thirdly, the ineluctable interest of U.S. based TNCs in the maintainance of an open international economy has made systematic protectionism politically infeasible. In combination, these pressures have produced a policy which has allowed the growth of manufactured imports from Latin America while encouraging the growth of U.S. direct investment, but has also erected tariff and non-tariff barriers against Latin American manufactures in a number of different industries while failing to provide relief to U.S. communities and workers whose fortunes are tied to declining industries.

Continuation of current U.S. policy is the most likely prospect for the future, but three other possibilities must also be considered. None of these is likely to emerge as an alternative in itself, nonetheless, each represents a direction in which current policy might be modified. The most obvious is active retardation of structural change. This is an attractive possibility from the point of view of labour displaced from traditional industries by technological change and international competition. It may also be attractive to domestic capital in that it provides relief without implying serious government involvement in the allocation or management of industrial capital. It is, nonetheless, unlikely to dominate U.S. industry both because of the high welfare costs involved (especially to workers involved in the production of non-tradables), and because of its strong negative consequences for politically powerful TNC capital.

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* Professor Peter B. Evans, Brown University, USA

A second, even less likely possibility is positive adjustment focused primarily on achieving increased competitiveness in international markets. This would involve relaxing current attempts to shield "sunset" industries while actively promoting and subsidizing the growth of "sunrise" industries. Aggressive export promotion would be one of the hallmarks of such a policy and it therefore might be called "nationalist accelerated adjustment".

The final and least likely alternative might be called "internationalist accelerated adjustment". Like a nationalist variety of accelerated adjustment it would involve active governmental efforts to shift the sectoral profile of U.S. industry, but the major emphasis of such policy would not be on export promotion as such. Export promotion solves domestic problems at the expense of trading partners. For an economy as large as the U.S. to attempt such a solution would imply extreme costs for other nations, especially newly industrializing nations.

An "internationalist" industrial policy, one which attempted to solve U.S. economic problems without disrupting the industrial growth of other nations, would therefore have to focus primarily on using domestic resources, especially labour, more effectively rather than concentrating on balance of payments problems. This would entail significant public involvement in the reallocation of domestic capital, both among industries and among activities within industries, and much more serious public attention to the functioning of domestic labour markets. While such an emphasis would be the most desirable from the point of view of U.S. trading partners, it is the least likely to find expression in future policy.

The way in which these tendencies are blended to form future U.S. industrial policy is obviously of crucial importance to Latin America. U.S. industrial policy affects all developing countries, but its effects are particularly great in Latin America. While East Asian NICs have played a more central role in the increased U.S. consumption of manufactures from developing countries, economic ties between the U.S. and Latin America are more intimate and complex, first of all because of the greater role of U.S. TNCs in Latin American manufacturing and, secondly, because of the greater inter-connection of the Latin American and U.S. labour markets (via immigration).

Continuation of current U.S. policies will hamper Latin America's prospects for industrialization. A movement in the direction of active retardation of structural change would force a fundamental rethinking of current Latin American industrialization strategies. Such a rethinking could in turn have serious, unanticipated negative effects on the international position of U.S. manufacturing. It must be remembered that without its trade with Latin America the U.S. would have had a negative balance of trade in manufactures of almost US $ 12 billion in 1979 instead of a positive balance of over US $ 5 billion.

Three industry case studies

Neither current U.S. industrial policy nor future possibilities should be examined in abstraction from recent shifts in the international position of the U.S. manufacturing sector. While lagging productivity growth and declining international competitiveness are problems for U.S. manufacturing in general, the situations of different industries vary tremendously. Thus, the changing position of the U.S. is best understood at the level of individual industries. It is not possible to examine the full range of industrial variation, but steel, petrochemicals and electronics provide a good sample.

Steel is a classic example of declining U.S. competitiveness in basic manufacturing. U.S. steel companies never chose to compete in international markets, but they did enjoy a comfortable dominance of the world's largest domestic market. Over the years since World War II, this was gradually undermined by the failure of U.S. corporations to accompany technological change, changes in international raw materials prices relative to U.S. prices, and aggressive investments in the industry by the Japanese, Europeans, and NICs. The U.S. was left not only unable to compete internationally, but vulnerable to international competition in its domestic market. By the end of the 1970s profits had disappeared, tens of thousands of steel workers had lost their jobs, and imports were accounting for close to 15% of domestic demand. The steel industry was in serious trouble and the communities in the Northeast and the Ohio River Valley that depended on the industry were being devastated.

Given the distress of the industry, the high social costs associated with its distress, and the degree to which blame for the industry's problems could be attributed to failures on the part of corporate management, the steel industry presented an obvious opportunity for active public intervention. This opportunity was, however, explicitly rejected. Even the most comprehensive government plan for dealing with the industry's problems (the so-called "Solomon Plan") admonished that direct government involvement in the industry's decisions must be avoided.

Instead U.S. policy focused on ad hoc protectionist strategies such as the "Trigger Price Mechanism". These were estimated to have cost consumers about a billion dollars a year while saving only about 12,000 jobs. Ad hoc protectionism did not preserve jobs or profits in steel, but it did have a negative impact on the competitiveness of U.S. metal fabricating industries. In the case of the automobile industry, for example, it has been estimated that U.S. firms must pay 25% to 30% more for steel than their Japanese competitors.

There is no easy way out of the unfortunate position into which U.S. steel firms have gotten themselves. A general renovation of plant and equipment would not be feasible even if the capital were now available (as it was in the 1950s). Current capital costs are too high for new greenfield facilities in the U.S. to be competitive with existing facilities in other countries. Even if more competitive capacity could be built, domestic demand would not support any additional capacity and exports are almost out of the question given worldwide problems of over-capacity.

The most rational strategy would seem to involve phasing out the uncompetitive plants of the Northeast and Ohio River Valley, and shrinking overall capacity by between 10% and 20% while encouraging the construction of electric furnace mini-mills in areas where scrap is available and markets are more robust (e.g. the Southeast). Such a policy would involve active state involvement in capital allocation and, even policies in order to reduce social costs.

From the point of view of Latin Americans, steel is a classic example of the negative effects of current U.S. policies. Because of the essentially negative orientation of U.S. policy in the industry, the growth of steel capacity in Latin America has been seen as a threat, despite the fact that Latin America imports about three times the amount of steel from the U.S. that it exports to the U.S. and despite the fact that the growth of Latin America capacity has presented an important potential market for U.S. capital goods.

Brazil in particular has suffered from the ad hoc protectionism of current U.S. policy. With large domestic reserves of very high quality iron ore, Brazil can legitimately claim to have a long-run comparative advantage in the production of steel. Between 1979 and 1981 it tried to exploit this comparative advantage and solve its own problems of falling domestic demand by increasing exports of carbon steel plate, stainless steel wire rod and stainless steel bar to the U.S. Although Brazil never accounted for more than 5% of U.S. domestic consumption, even in those products in which it was most successful, its exports came under legal attack as being "subsidized" and therefore as potentially subject to countervailing duties.

Petrochemicals, unlike steel, has always had a strong international orientation. U.S. TNCs, both oil and chemical, have made major committments to production facilities in the Third World and in Europe, and have provided the U.S. with an important source of export earnings. Between 1973 and 1980, U.S. petrochemical exports increased more than four-fold. Despite the apparent dynamism of the industry, however, continued U.S. competitiveness cannot be taken for granted. The rapid growth of exports was related primarily to the growth of worldwide demand rather than increased U.S. competitiveness. In fact, U.S. market shares were falling during this period. In plastics, for example, the U.S. share of world export markets fell from 27% in 1962 to 17% in 1970 to 12% in 1977.

Petrochemicals is a highly differentiated industry. The competitive position of the U.S. has remained very strong in the more technologically sophisticated downstream products, but in basic petrochemical products U.S. competitive advantage has been undercut by two factors. Most important was the dramatic change in relative raw materials prices that followed on the oil price revolution. Energy rich LDCs now have a substantial advantage over the U.S. in terms of raw materials and energy costs. In the case of Mexico, for example, feedstock costs may be a quarter of U.S. costs. The second change has been more gradual but is also important. The differential capital costs of constructing plants outside the U.S. is narrowing. To use Mexico as an example again, construction costs were estimated at 25% above U.S. costs at the beginning of the 1980s but will be only 18% higher by 1985.

Converging capital costs and substantially higher raw materials and energy costs leave the U.S. two choices with regard to basic petrochemicals. The profitability of existing naphtha crackers and other basic installed capacity could be shielded by raising the (already not insignificant) tariff barriers of those commodity petrochemicals that are easily transportable. The immediate negative effects of such a move from a Latin American point of view would be negligible. In the longer run however, Mexico (and potentially Venezuela) would be deprived of what could otherwise be a crucial market, a market that could facilitate the development of an important vertically integrated basic industry.

The protectionist option would also, as in the case of steel, have negative effects on the international competitiveness of U.S. industries for which basic petrochemcial products are important inputs (e.g. textiles).

The alternative possibility would be to assume gradual replacement of a proportion of existing basic capacity by imports, and to focus on product and process innovations in more technologically sophisticated downstream products, (e.g. fine chemicals, agricultural chemicals). Even though the more advanced Latin American countries are unlikely to accept a definition of the international division of labour that would exclude them from the production of more sophisticated downstream products, increased U.S. openness with regard to basic commodity petrochemicals would significantly increase the options available not only to countries with a long-term comparative advantage in petrochemicals, like Mexico, but also to countries whose petrochemical development strategies focus on the domestic market, like Brazil.

The context shaping policy decisions in petrochemicals is much different than the policy environment surrounding steel. The companies involved are profitable, technologically aggressive, strongly interested in the preservation of a global environment open to trade and investment and without any overriding current interest in protection. The number of workers involved is relatively much smaller than is the case in steel and there is no pattern of community dependence on the industry comparable to the pattern that exists in steel. The policy environment is, therefore, generally much more flexible than is the case in steel.

At the same time, however, future possibilities in this industry are complicated by the fact that, unlike the steel case, U.S. corporations have significant global as well as domestic interests at stake. The policy issue is therefore not simply protectionism, but one of how the interests of U.S. TNCs would be affected by different patterns of importation. More specifically, U.S. TNCs are likely to have a strong preference for sourcing imports from the Saudi Arabian capacity which they are playing a central role in developing rather than from the Mexican capacity or Brazilian capacity which has been developed by state and local capital with much more limited participation by U.S. TNCs.

In steel, firm strategies were important mainly in the negative sense of generating problems which then had to be dealt with by future government policy. In petrochemicals, it seems likely that industrial policy will interact with firm strategies to determine the environment within which Latin American countries must operate. In electronics, firm strategies themselves seem likely to play the most important role in determining the options available to industrializing countries.

Electronics is already characterized by well established strategies for the international differentiation of the productive process. U.S. TNCs have developed a variety of different strategies depending on the subsector of the industry in which they are involved. In consumer electronics, the "run-away shop" has been the rule. The U.S. is an importer rather than an exporter, and in some products (e.g. black and white TVs) domestic production has virtually ceased. In semi-conductors both U.S. imports and U.S. exports are large. Capital intensive parts are fabricated domestically; labour-intensive assembly is done in LCDs and the assembled components are re-imported for insertion into final products, such as computers.

The computer industry itself remains geographically centralized. U.S. imports are still relatively small, production in LDCs is almost non-existent, and U.S. exports amount to about 25% of domestic production. Each of these ways of defining the international division of labour opens up certain opportunities for Latin American countries while at the same time placing important limits on the possibilities for industrial development.

TNC strategies focused on the geographic dispersion of the production process in electronics have facilitated significant expansion of Latin American exports in the industry, as well as stimulating the growth of labour-absorbing manufacturing activities. These developments are most significant in the case of Mexico, which now supplies almost a third of all television parts and apparatus imported by the U.S., and is an important supplier of electronic components in general.

One advantage of these manufactured exports is that they are unlikely to confront protectionist barriers erected by the U.S. government, precisely because they are so intimately linked to TNC strategies. Over 95% of Mexico's exports of electrical machinery are "related party imports"; that is, they are produced by subsidiaries of U.S. firms (or other kinds of "related parties"). In contrast to petrochemicals or steel, imports in this industry can count on powerful domestic interests in the U.S. which depend on their having access to the U.S. market.

The close linkage between TNC strategies and Latin American industrial growth in this industry has, of course, disadvantages as well as advantages. In direct proportion to the intimacy of their linkages with the division of labour as it is defined within TNCs, electronics assmebly operations are marginal to the division of labour internal to the Third World countries in which they operate. Exports of 806.3/807, almost by definition, have few forward or backward linkages inside the country in which they are produced. Even in the case of a relatively industrialized economy like that of Mexico, electronics assembly operations are not a promising base for integrated industrial development (much less promising for example than petrochemicals), and in smaller less developed countries (e.g., Central America and the Caribbean) the prospects for positive general effects on industrialization are even more bleak.

At the same time, Latin American producers are very closely constrained by TNC strategies. Any attempt to move in the direction of constructing a more vertically integrated industry internal to a country like Mexico would run counter to the most efficient georgraphic division of labour as defined from a corporate point of view and, since the existing assembly oriented industry is completely dependent on the cooperation of TNCs, the corporate view must almost inevitably prevail.

Mexico and other Latin American countries that have become involved in electronics assembly are also vulnerable to changes in TNC strategy based on changes in technology. Already, the foreign share of the value added contained in 806.3/807 electronics imports is declining as the circuits etched on the originally exported wafers become more complex and therefore more valuable. A potentially much more fundamental threat is contained in the possibility that changes in production technology might make automated assembly of semi-conductors in the U.S. economically preferable to the current international division of labour. Since promotion of such automated assembly technology is a plausible priority for a programme of "nationalist accelerated adjustment", this policy alternative may be more threatening to Latin America's interests in the electronics industry that a continuation of current policies.

Future possibilities

The industry case studies reveal a number of different ways in which Latin American countries might be negatively affected by future U.S. policy. The simplest effects are illustrated by the steel industry. Steel makes clear the limitations imposed on Latin American attempts to develop manufactured exports by current U.S. policy. No Latin American country with hopes of building future industrialization around the expansion of manufactured exports can afford to ignore the lessons of the steel case: penetrating the U.S. market independently of channels provided by multinationals is a very problematic strategy regardless of whether or not the inefficiency of U.S. producers make price competition feasible.

The lesson of Brazil's experience in steel is that success in penetrating U.S. markets is likely to draw attention to the successful exporter and provoke retaliation policies. Steel also underlines the reasons why current policies will persist. Even a radically market-oriented administration like the current U.S. one found itself unable to avoid supporting a continuation of ad hoc protectionist policies in the steel industry.

The electronics case provides a very different kind of support for the proposition that current policies are likely to persist. By making it more difficult to penetrate the U.S. market independently of channels provided by TNCs, ad hoc protectionism makes arrangements like those developed in the electronics industry all the more valuable to those who would expand their manufactured exports. In this sense TNCs may well find that ad hoc protectionism serves their interests better than a policy of classic liberal openness. At the same time, the electronics industry provides a good illustration of both the constraints and vulnerabilities that confront Latin American manufacturing when it tries to operate within the international division of labour as it is defined by TNCs and the potential dangers for Latin America that are contained in a policy of nationalist accelerated adjustment.

Petrochemicals suggests a similar sort of caveat with respect to the potential benefits of a policy of "internationalist accelerated adjustment". The discussion of basic petrochemicals showed that the removal of governmental barriers would still leave questions of access at least partially in the hands of TNCs which were likely to prefer to source their imported inputs from petrochemical industries, like those in Latin America, where state and local capital along with non-U.S. TNCs play a predominant role.

The petrochemical case should not be taken to suggest that a policy of "internationalist accelerated adjustment" is not vastly preferable from a Latin American point of view to either the continuation of current policy or the adoption of a policy of "nationalist accelerated adjustment". It does, however, reinforce the obvious point that Latin Americans should not expect to much of U.S. policy even under the best of circumstances.

Current policies enhance the extent to which Latin Americans and TNCs can build alliances around internationalist positions. An internationalist policy might well increase the extent to which Latin Americans began to focus on the fundamental differences between the way in which they define internationalism and the way in which it is defined by TNCs. Regardless of its domestic effects and its consequences for openness, no U.S. industrial policy will strengthen the hand of Latin Americans in their dealings with U.S. TNCs. For example, not even the most internationalist policy is likely to deal with problems critical to Latin American industrialization such as "de-packaging" of technology currently controlled by TNCs or the effects of TNC market power on industrial structures in Latin America.

An adequate conceptualization of future possibilities for the evolution of economic ties between the U.S. and Latin America must consider the interaction of Latin American and U.S. policies, not just the probable configuration of U.S. policy. Thus, one important aspect of potential U.S. policies is the extent to which they would provoke or force nationalist responses on the part of Latin Americans. Systematic protectionism, for example, would force a fundamental re-evaluation of the current externally oriented industrialization policies of most Latin American countries. It would not only make resolution of balance-of-payments problems through the expansion of manufactured exports manifestly more difficult and force Latin Americans to curtail their consumption of manufactured imports, it would also make alliances with U.S. TNCs manifestly less valuable.

Indeed, the possibility of provoking retaliatory policies against U.S. TNCs (as well as U.S. transnational banks) cannot be discounted. A policy of internationalist accelerated adjustment on the other hand would not compel a particular policy response from Latin Americans. Latin American regimes might respond by offering a complementary openness, but the policy in itself would not preclude a response focusing on trying to develop less vulnerable and limited positions in the international division of labour in manufacturing by building more internally integrated local industries and trying to reduce dependence on external sources of financial capital and technology.

Variation among Latin American countries in terms of the character of their economic ties to the U.S. must also be considered. It is not simply fortuitous that Mexico and Brazil have served as the primary examples in each of the three industrial case studies. They not only dominate both the manufactured production and manufactured exports of Latin America, they also account for two-thirds of U.S. direct investment in Latin America and the largest share of U.S. trade in manufactured goods. For U.S. TNCs in sectors like machinery, electrical and electronic equipment and transportation equipment, Mexico and Brazil in combination represent between 80% and 90% of their stake in Latin America. Consequently, it is the policy responses of Mexico and Brazil that are most important to U.S. TNCs.

Mexico is particularly important. Because of its extensive trade relations with the U.S. and because of the extent to which U.S. direct investment in Mexico is linked to U.S. Mexican trade, Mexico is a prime candidate for being drawn in a common developmental strategy by U.S. adoption of an internationalist approach. Such a development would be particularly advantageous to U.S. TNCs operating in Mexico. By the same token, the kind of rupture that would occur in the event that the U.S. adopted a more stringently protectionist strategy and Mexico replied in kind would be most traumatic in the case of Mexico, despite the fact that the Mexican economy, more than any other in Latin America except Brazil, enjoys the scale and degree of differentiation necessary to make a more autarkic strategy viable.

The situation with respect to the countries of the Southern Cone (Argentina, Uruguay, Chile and Paraguay) provides the best contrast to the Mexican case. These countries have relatively little trade with the U.S. and U.S. TNCs have shown only limited interest in recent years in participating in the development of their manufacturing sectors. The relatively more distant connections between manufacturing in these countries and U.S. industrial policy is perhaps best indicated by the fact that they have virtually no representation among 806.3/807 exports to the U.S. The expected economic benefits from preserving hospitable economic climates in these countries are relatively minor compared to those in the Mexican case. Likewise the costs to the U.S. of the adoption of more nationalist policies by these countries would be less.

At the same time, the restricted scope of local manufacturing capacity would make it harder for these countries to adopt a more nationalist set of policies, even in the face of U.S. provocation. Economically, then, the U.S. would appear to have a great deal of leeway in its policies toward the countries of the Southern Cone. Politically, however, the situation is more delicate. The regimes that preside over these countries are firm ideological allies of the U.S. and the institution of an unfavourable industrial policy in the U.S. might well have both an immediate effect on their legitimacy and a longer term effect on their ability to remain in power.

The Brazilian case stands midway between the Mexican and Southern Cone cases. On the one hand, U.S. direct investment in Brazil is much less oriented toward the U.S. market than is the case in Mexico. Brazil's participation in 806.3/807 imports, for example is relatively minor. Its relatively smaller degree of participation in TNC constructed trade links with the U.S. make the possibility of Brazil pursuing a more nationalist course even in the face of an internationalist stance on the part of the U.S. greater than in the case of Mexico. At the same time, the scale and diversity of its economy gives Brazil a wider scope for movement in the direction of more autarkic policies than is enjoyed by the countries of the Souther Cone. Given that the stakes are higher and the outcome less certain in Brazil than in most other Latin American countries, the possibility of provoking a nationalist reaction in Brazil must be considered one of the major Latin American risks that would be involved in U.S. adoption of a more stringent protectionist policy or (less dramatically) in the continuation of present policy.

Regardless of U.S. policies choices, and regardless of the situations of the particular countries involved, the primary determinants of Latin American policies are likely to be internal. Nonetheless, U.S. policy makers must be aware that movement toward protectionism, and to a lesser extent continuation of current policy, does increase the risk of stimulating Latin American responses that would undercut what must be considered objectively a very favourable situation for the U.S. in general and for U.S. TNCs in particular. Movement of Latin American regimes in a more nationalist direction would be problematic for even the larger, more industrialized countries like Brazil and Mexico, but it would also hold the promise of alleviating some of the limitations imposed by the current nature of U.S./Latin American relations. From the point of view of the U.S., and especially from the point of view of U.S. TNCs, less "internationalist" policies on the part of Latin American regimes would be costly.

What is the most likely future possibility? It is quite simply that the U.S. will remain trapped in an industrial policy which offers little prospect of revitalizing its manufacturing sector while Latin American's continue to confront the limitations which this policy imposes on their own industrialization. Latin America must therefore formulate its own industrial policy with the clear realization that future U.S. policy is very unlikely to offer any relief from current problems.

STRATEGIES AND POLICIES FOR THE 1980s AND 1990s, AN AUSTRALIAN PERSPECTIVE

by J.A. Ferguson*

INTRODUCTION

Australia welcomes this opportunity to present its views on strategies and policies for industrialization in developing countries.

Australia's qualifications to speak in this area are based on its own, relatively recent, industrialization which has shared many of the characteristics of industrial development in developing countries - a small domestic market, an import replacement approach initially, substantial reliance on imported capital and technology - as well as its experience in cooperating with our developing country neighbours in the Asia/Pacific region in their industrialization.

The subject of the Lima Meeting is most complex and at the outset it must be noted that the Meeting appears to be premised on a new set of parameters for global industrial development during the coming decade.

This paper addresses three broad aspects of our approach to the long-term industrialization process in developing countries:

- whether there is a need for a radical change of direction;
- what is the "correct" recipe; and
- the major industrialization issues in the eighties.

The need to change direction

At a global level the economic situation which has been facing most countries is extremely difficult. In terms of unemployment, inflation, high interest rates, low commodity prices, large debt burdens, increasing protectionist pressures and so on. Although there are some signs that the bottom of the trough has been reached, evidence of any sustained upturn has yet to emerge.

There is no doubt that the world economy and particularly many of the non-oil producing developing countries have faced severe adjustment pressures from events of the 1970s and early 1980s. However, one must question whether shifts in relation to industrialization opportunities have been so fundamental as to warrant a reversal of ongoing approaches.

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* H.E. Mr. J.A. Ferguson, Ambassador Extraordinary and Plenipotentiary, Embassy of Australia in Peru.

In the Asia/Pacific region the state of industry in most countries suggests that there are grounds for confidence in the future and also satisfaction in the performance to date. This is not to say that serious problems do not exist, and will not continue to arise, but it suggests that the industrialization strategies pursued in the region (as discussed below) are heading in the right direction.

Accordingly there is no pressing need for radically new perspectives on industrialization. The most desirable course, it would seem, is to ensure that many of the industrialization strategies and directions already established are reinforced and continue to evolve. Therefore, one must counsel against engaging in new strategies of uncertain merit and cost effectiveness.

At the same time it is recognized that governments and organizations, including the UN system, are finding that they must operate within constraints that even a few years ago were not necessary. This suggests that all governments and international agencies must ensure, even more than in the past, that all activities are as cost effective as possible and must be contained within stringent budgetary controls.

In particular, in respect of industrialization, emphasis should be given to using resources on projects which will show early economic returns, where delivery will be direct and where confidence in the process of industrialization is promoted.

One way in which this should manifest itself is in lessening concentration on more esoteric and conceptual exercises. This can be justified particularly on the grounds that significant multiplier benefits can flow from sound industrial projects whereas excessive "hot air" merely tends to create explosions.

As a corollary close attention should be paid to determining priority areas, which, of course, are constantly changing, eliminating those activities of lowest priority and concentrating a major part of our efforts in the top priority areas.

To avoid waste and duplication of effort clear criteria and close communication are essential. Agreed objectives need to be pursued in a fashion consistent with the mood in which they were achieved.

This approach is not one of negativism. There are merits in a wide range of industrialization initiatives. The concern being expressed is that the limited resources available are used in the most effective way to contribute to the industrialization of the developing countries.

What is the correct recipe?

It has been common in the past for many developing countries to see industrialization as being synonymous with rapid development and to approach industrialization in unrealistic and constrained time frames.

Attempts to mirror developments in developed countries or in the more industrially developed of the developing countries have often led to a static approach to industry issues. This approach fails to recognize that industrial development is essentially dynamic and changeable and that successes reaped by one country may not necessarily be repeated in other countries in a different period of development and in a different international economic environment.

As a result there have been examples of successes in vertical industrial development which have often been at the expense of horizontal development, leading to significant social, health, employment and political problems. These have been accompanied by increased public intervention to support enterprises and an overall deficiency in political, social, technical, and managerial infrastructures to support such development.

Those approaches to industrial development which have emerged and which attempt to avoid or mitigate these problems should be strongly endorsed. These approaches have focussed on more realistic strategies suitable to the characteristics of individual developing countries and which have relied largely on the enterprise and resources of the country concerned. ESCAP has done valuable work in this area and has put forward strategies under two broad headings:

- The first is an endogenous form of industrial development involving strengthening absorptive capacity and manufacturing capabilities. Based not simply on massive transfer of resources or the appropriate mix of trade strategies (e.g. import replacement/ export orientation) but more importantly on the attention given to the progressive and balanced development of infrastructure facilities, training, entrepreneurship, skills, education, investment policies and careful government planning, backed up by appropriate gap filling support from the international community.

- The second group of industrial strategies are of a qualitative nature and stress the re-orientation of policies to ensure broad community benefit. For example by strengthening linkages between agriculture and industry; balanced spatial dispersal of industry within countries; promotion of small-scale industries and their linkages with large and modern industries; and orientation of industry to satisfy basic needs.

All of this does not mean that one dismisses the significant advantages of interdependent development. Clearly closer co-operation between countries, particularly within regional groupings, is highly desirable. Numerous initiatives have been taken to encourage this; and despite uncertainties involved these have generally been successful. However, the precise form of such cooperation varies greatly between different activities, industry sectors and the socio-economic policies pursued. Such cooperation can, however, be facilitated most effectively by maintaining maximum flexibility and not seeking to impose a uniform model on such development cooperation.

Australia sees the future role of institutions in industrial development as including the following:

- First, building on existing expertise through the extension of services to foster industrialization but only on the basis of effectively meeting demonstrated needs. Operations should expand therefore as the need arises with the required administrative structure following, not vice versa;

- Secondly, providing pragmatic assistance to developing countries in meeting industrialization priorities where these are beyond domestic resources. Practical support of this type includes technology development and transfer, market assessment studies, information services, investment feasibility studies, policy consultations, technical assistance and establishment of regional facilities when viable;

- Thirdly, ensuring financial resources provided by the international community e.g. through the International Bank for Reconstruction and Development, the African Development Bank, the United Nations Development Programme and the United Nations Industrial Development Fund, are spent efficiently and in a complementary fashion to resources from other quarters and further that the proportion of such resources deployed to rhetoric or debate over largely irreconcilable issues is kept to a minimum; and

- Finally, providing a coordinating and "clearing house" role to encourage harmonization and integration of activities as far as possible.

As examples of this type of practical support one has in mind, there are a number of low cost projects in which Australia is presently involved which is believed carry the potential for a substantial pay-off in terms of generating industrialization and economic growth. One such area is the hosting jointly with UNIDO of workshops in areas where Australia has some worthwhile technology to transfer to developing countries and where knowledge of this technology can be made available through the medium of short-term seminar programmes for experts who already have a considerable grounding in the subject area.

In a similar vein, Australia supports regional bodies such as the Asian Institute of Technology, the Regional Network for Agricultural Machinery and the Regional Centre for Technology Transfer. These institutions, by gathering information on technology and by training people with appropriate skills, can make a contribution to development far greater than the modest resources dedicated to them would infer. Institutions like these extend the "capabilities" of industrialization and perform a software function akin to the hardware of physical infrastructure.

A further area to which Australia attaches importance is that of small and medium-sized enterprises. This area is receiving considerably more prominence under the general umbrella of industrialization and rightly so. As a relatively small country Australia has very few world-sized firms and more than its fair share of small firms and accordingly a great deal of effort has been expended to improve and optimize the performance of Australian small enterprises.

Australia recently hosted a seminar on small and medium-scale enterprises in order to share its experience with developing countries.

Australia is also actively involved in the area of enhancing industrialization within the commonwealth through both its global institutions (particularly the industrial development unit) mainly based in London, and its regional arrangements.

Major industrialization issues in the 1980s

In summary, there is no single or simple strategy that can be rigidly followed in achieving industrialization. Either in the way individual countries "do their own thing" or in the supportive policies of international agencies or inherent in bilateral arrangements. At times the supportive role should be founded on a "global" strategy. In other cases support needs to be pinpointed to specific needs in individual countries.

There are however, broad principles which can assist in guiding the roles of particular agencies. For example, relatively small bodies should not become involved in large-scale projects and selecting areas of most immediate need which are not being covered by the work of other agencies. This is being facilitated by concentration on:

- project preparation;
- feasibility studies; and
- training workshops.

At the same time success should not be measured by the absolute number of projects but rather by the completion of a smaller number of projects which have been done well. In this regard the establishment of clear objectives and priorities is essential.

A brief summary of the broad approach Australia is expected to pursue in its own industry policy may throw some light on issues which are being encountered by, and likely to be confronted by developing countries. While the current situation causes some uncertainty it is possible to conclude that Australia will continue to maintain emphasis on industrial policies which cause minimum internal disruption at times of high unemployment and which encourage, inter alia, small business development, "sunrise" industries, industrial research and development and the integration of employment and training with industry policy.

Issues such as international protectionism, structural adjustment in developed countries, the respective functions of the public and private sectors, taxation policies, intervention in capital markets and appropriate planning mechanisms are all issues with which one must come to grips. Equally important are the goals of getting world markets on an expansion course, increasing resource flows generally and at the same time suppressing the distorting influence of inflationary pressures.

However, it must be stressed that these are issues which range far more broadly than the industrial arena and should not be allowed to obscure the more fundamental industrial strategy-specific questions which should be the main focus of this forum.

INDUSTRIAL DEVELOPMENT STRATEGIES AND POLICIES IN DEVELOPING COUNTRIES WITH PARTICULAR REFERENCE TO COOPERATION WITH THE FEDERAL REPUBLIC OF GERMANY by Juergen Kuehn*

Discussions on development strategies are frequently overshadowed by ideologies and therefore one-sided. Some maintain that initiating a successful process of development merely requires promotion of the right sector, e.g. industry or agriculture. Others have absolute confidence in the exclusive development of the domestic market, thereby opposing theories that are based on a mainly export-led development. Such one-sided views should be avoided. Given the interdependence between the individual sectors of the economy and between industrialized and developing countries, they lead to undesirable developments that are difficult to correct.

If a sound and gradual economic development is to be achieved, the interdependence between the individual sectors of the economy requires a policy that offers simultaneous assistance to more than one area, and in this way leads to mutual stimulation. Agriculture and industry, for instance, can generate mutual growth impulses.

One of the main problems faced by developing countries is the increasing food shortage. Frequently the reason for this is that the producer prices fixed by the government are too low. As a result, the urban population can obtain food at low prices, but at the same time the incentive for higher agricultural production is destroyed and the agricultural sector is prevented from developing a considerable demand potential for manufactured products, such as agricultural equipment, fertilizers and consumer goods, which in turn could encourage the creation of industrial jobs.

One-sided decisions should also be avoided when drafting a domestically oriented or export-led strategy. Which elements must be given particular attention depends on the situation in each developing country. A small, densely populated country without indigenous raw material resources and a big country with a large population and indigenous raw material reserves must pursue different strategies. The needs of the population will normally be an argument in favour of focusing greater attention on the home market. A domestically oriented strategy should not blindly copy foreign models and endeavour to achieve industrial growth through capital intensive investments, but should attempt to do so by mobilizing the unemployed and underemployed, so that the broadest possible sections of the population may be involved in the process of economic growth.

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* Mr. Juergen Kuehn, Deputy Director General at the Federal Ministry of Economy, Bonn, Federal Republic of Germany.

As the developing countries are normally dependent on imports for their economic development and can service their debts only via current account surpluses they must, as a matter of principle, also pursue an export-led strategy and integrate themselves into the world market with its division of labour. To achieve this they must be able to offer competitive export products, some of which require modern capital intensive industries.

Throughout, it is necessary to ensure that national and international development strategies are dove-tailed.

From this it follows that, in the search for strategies and policies for the industrial development of developing countries, it is probably impossible to develop general concepts that apply to all, or major groups of, developing countries. The situation in the various developing countries is so different - differences in territorial size, size and density of population, available resources, infrastructure - that general precepts cannot adequately take the concrete needs of each developing country into account. Therefore, it is necessary to draw up an individual strategy and policy for the economic development of each country and base them on the factor availability in the country in question. This does not rule out that during the process of development experience may be gained that should be drawn on by all.

It is the task of each individual developing country to draw up and put into practice the appropriate strategies and policies for its industrial development. This task cannot be assumed by international organizations or industrial nations. They can provide valuable help, offer advice to developing countries, and assist them with technical advice and financial aid in the implementation of concrete measures. When industrial development strategies are drawn up, the following elements should be given particular consideration:

- the optimum use of indigenous resources;
- meeting basic needs;
- taking account of the rural poor and the urban poor;
- the connection between rural and industrial development;
- the expansion of transport and communications systems;
- safeguarding energy supplies;
- the training of skilled workers and managers;
- rural industrialization;
- the promotion of small and medium-size industries;
- the promotion of the production of exportable goods;
- the promotion of savings and an adequate supply of capital; and
- an increase in administrative efficiency.

When formulating their industrial development policies the developing countries should also take care to create a favourable investment environment that offers incentives not only for domestic but also for foreign investors. Cooperation can only hold the promise of success if the interests of all partners involved are accommodated. Unreasonable and one-sided regulations should be avoided and a stable political and administrative environment for such cooperation should be created and/or maintained.

Cooperation between domestic and foreign partners should be given particular encouragement. In joint ventures domestic and foreign partners can each make valuable complementary contributions. The domestic partner is familiar with the home market, is experienced in dealing with domestic workers, has ties with other companies and is acquainted with administrative practices. The foreign partner can provide scarce capital, transfer technology, contribute important technical know-how and managerial experience, help train skilled workers and managers and offer sales outlets on foreign markets. In some cases partners from other developing countries can also provide important experience.

The Government of the Federal Republic of Germany respects the sovereign right of the developing countries to decide independently on their strategies and policies for industrial development and to implement the measures they adopted. However, it is prepared, within the limits of its financial possibilities, to provide on a mutually agreed basis technical and financial assistance to developing countries for the establishment and expansion of manufacturing enterprises.

Particularly important conditions for industrial development are a functioning transport system, a secure and reasonably priced supply of energy and the development of human resources. The latter requires an adequate food supply, health care, and training. The Federal Republic of Germany makes contributions to the development of all these sectors.

Setting up industries in developing countries also requires cooperation with private industry in the industrialized countries. Companies, and not the government, have the knowledge about production processes, company organization and sales channels. For this reason, the Federal Government applies a broad set of instruments to promote cooperation between German companies and developing countries. These instruments include:

- investment promotion agreements; such agreements have been concluded with more than 40 Third World countries. The experience gained with these agreements is positive. They provide mutual promotion and mutual protection of investment;

- capital investment guarantees; these are provided by the Federal Government to cover the political risk run by German companies that invest capital in developing countries; and

- equity participations of the Deutsche Gesellschaft für wirtschaftliche Zusammenarbeit (DEC - German Company for Economic Cooperation) designed to promote joint ventures of German companies in developing countries. Joint ventures involving small and medium-size firms are to be given particular encouragement.

The companies involved in private cooperation with developing countries are mainly large ones, while the number of small and medium-size firms is only small. This is regrettable, as small and medium-size firms offer special advantages: they are more flexible, more dynamic and better able to adapt to the situation. Moreover, a diversified economy with a large number of companies, including small ones, is less crisis prone than one that depends entirely on a few large enterprises.

Investment by small and medium-size companies in a developing country frequently entails a considerable risk. The Federal Government therefore grants preferential promotion to cooperation between small and medium-size firms and developing countries, both through a network of industrial cooperation advisers and through a scheme, under which German firms with an annual turnover of less than DM 200 million may obtain soft loans for the establishment of enterprises in developing countries.

The development banks in the Third World countries are an important instrument for the promotion of small and medium-size companies in developing countries. The Federal Republic of Germany provides them with loans which they can then pass on to small and medium-size enterprises.

If the development of the industrial sector in the developing countries is to be successful, these countries must also be able to sell their competitive products on the world markets. This assumes that the industrial nations do not only keep their markets open at the present level for imports of manufactured and semi-manufactured products from the developing countries and refrain from protectionist measures, but open their markets further as time goes on. Higher imports of manufactured goods will generate pressures to adjust industrial patterns to the changed production situation. This pressure must not be diverted by applying protectionist measures; instead, industry should face this challenge.

The necessary structural adjustments are primarily the responsibility of industry. The economic policy of the Government of the Federal Republic of Germany is intended to facilitate and promote structural change. It aims above all to create the conditions necessary for forward looking private and public investment on a larger scale. The structural policy of the Government is intended to support the process of adjustment in industry by means of general measures to promote factor mobility and to accelerate technical progress.

The research and technology policy of the Government of the Federal Republic of Germany is intended in particular to increase international competitiveness. By promoting innovation and helping industry to develop new markets at home and abroad, the Government is increasing the adaptability of German industry and creating the conditions necessary for changes in the international divison of labour with the developing countries.

The Government of the Federal Republic of Germany regularly reviews its structural policy, inter alia, with respect to its contribution to the desired change in the industrial division of labour with the developing countries and to facilitate the necessary process of adjustment in the Federal Republic of Germany. It takes the view that interventions, particularly subsidies which serve to maintain old structures, not only have an unfavourable effect on industrialization in the developing countries but also prevent the efficient deployment of production factors in the Federal Republic of Germany itself. The Government of the Federal Republic of Germany will continue in its endeavours to eliminate this type of intervention which maintains old structures.

Generally speaking, the Government of the Federal Republic of Germany believes that the effects of worldwide structural change which are equally positive for developing and industrial countries are best achieved by market forces (competition and prices) rather than by anticipatory planning between states of the industrial adjustment process. It is particularly important that world trade should be free to develop and that there should be free access to the markets of all countries for the increasing exports of the developing countries. The economies of the industrial countries must face up to the resulting pressure to make structural adjustments without resorting to measures designed to preserve old structures.

The trend in the Federal Republic's trade with the non-European developing countries illustrates that this policy of the Federal Government is successful. The value of finished products imported from the developing countries rose from US $ 2,913 million in 1975 to US $ 7,318 million in 1981. During the same period, not only did the share of finished products in imports from the developing countries increase, but the developing countries also raised their share in total imports of finished products noticeably. This is one of the reasons why the developing countries (excluding the OPEC countries) have achieved a constant surplus in their trade with the Federal Republic since 1977, with the exception of 1981. That is, their exports to the Federal Republic have exceeded their imports from it.

The level of future increases in exports from developing countries will depend largely on whether free trade can be maintained in the world despite the present difficult world economic situation, and whether protectionist tendencies can be prevented. The Government of the Federal Republic of Germany is therefore, internationally and within the European Community, in favour of an open multilateral trade system in the world and against protectionist measures.

SOME RESULTS AND PROSPECTS FOR INDUSTRIAL DEVELOPMENT OF NEWLY INDEPENDENT COUNTRIES AND THEIR COOPERATION WITH THE CMEA COUNTRIES by V.D. Popov*

The development of national industry is one of the major strategies of newly independent countries in their struggle for economic independence. Without national industry it will be difficult for newly independent countries to get rid of the one-sided and often monocultural pattern of their economy imposed by colonialism, increase labour productivity and accumulation fund, to provide their economy with a modern technological basis, to involve effectively the surplus population in social production process, and to change their role in the international labour division system. Finally, industrial development is followed by changes in the clan structure of developing countries, and hence in the role and position of various classes, which is crucial to the eventual solution of the problem of the future direction of social development.

It was stressed at the meeting of experts on trade and economic cooperation between socialist and developing countries held in Bangkok (Thailand) early this year that the economic experience of the USSR and other countries of the socialist community had a great impact on the rates, trends and scope of industrial development of Asian, African and Latin American countries (Pravda, 4. IVI 83).

The rapid development of the national economies of the CMEA countries as well as the changed balance of forces in favour of socialism have created propitious conditions for further expansion of their participation in the international division of labour and in the development of various forms of cooperation with developing countries.

In the course of the development of the socialist community there emerged and is now successfully developing international division of labour of a socialist type. Within the framework of mutual cooperation on the international socialist division of labour basis new conditions reversed for the accelerated economic development of the CMEA countries, which, in turn, led to a substantial expansion of trade, economic and scientific and technological ties with developing countries.

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* Professor V.D. Popov, Diplomatic Academy, Moscow, USSR.

** The rough English translation of this paper was edited by the UNIDO Secretariat.

The socialist community countries are putting into practice Lenin's prophetic words, "bolsheviks are creating a completely new type of international relations, which will enable all oppressed (nationalities) to get rid of imperialist oppression". (Lenin, 107).

A steady development of economic, scientific and technological cooperation and coordination of production is taking place. This is reflected in the growing volume of know-how transferred to newly independent countries, in the training of national specialists for these countries in science and production, in deepening the division of labour, in carrying out research and designing, in cooperation in the field of scientific and technological information, in planning economic development, and in the development of new forms of economic cooperation.

The scientific and technological revolution, which created new means of production and accelerated the progress in the field of transport, has made our planet more "compact" for optimal distribution of productive forces and their management. The perfecting of means of transportation has changed the criteria of profitability with respect to the distribution of production in regard to the advisability or expediency of its specialization and co-operation with respect to the preference given to the exploitation of certain resources etc. The revolution in the field of means of communication accelerated the process of the dissemination of news about scientific and technological achievements.

This fact is of overriding importance for the development of the economies of newly independent states in Asia, Africa and Latin America. These states are trying to make use of the favourable opportunities created by the scientific and technological revolution.

However, the full use of these opportunities is being hampered by the neocolonialist policy pursued by the West. Capitalism, characterized by relations of expoloitation rapacious exploitation of natural resources, has not only preserved its nature, but is giving birth to new and more sophisticated methods of exploitation of whole nations and countries.

"The imperialists", it was stressed at the XXVI Congress of the Communist Party of the Soviet Union, "are displeased with the fact that the newly free countries are consolidating their independence. In a thousand of ways they are trying to bind these countries to themselves in order to deal more freely with their natural riches, and to use their territory for their strategic designs. In so doing, they make extensive use of the old colonialist method of divide and rule". (XXVI Congress 1981, 14).

Progressive circles in developing countries are beginning to understand more and more clearly the incompatibility of the basic interests of their countries with those of the imperialist countries. That is why the struggle for the abolition of the unequal relations imposed by the former colonial capitalist powers and for the establishment of equitable and mutually beneficial relations is becoming more intense.

Studying the experience of the USSR and the other socialist countries, progressive political and public figures of newly liberated states are becoming aware of the fact that the most serious long-term socio-economic problems of Asian, African and Latin American countries can be solved through the creation of independent national economies on the basis of industrialization and uses of the latest achievements of the scientific and technological revolution accompanied by progressive socio-economic transformations in these countries. This will make it possible to increase labour productivity, to abolish or reduce unemployment, to increase aggregate national income and expand consumption funds, to abolish the imperialist monopolistic exploitation, and to achieve, eventual certain socio-economic progress.

Many years of inequitable economic relations with industrialized capitalist countries convinced newly liberated states that it is futile to eradicate technological economic backwardness inherited from the colonial past and to create independent national economies on the basis of that sort of cooperation. Their own experience convinces them, that this problem can be solved only on the basis of an independent policy and closer cooperation with the socialist community - countries their allies in the struggle against imperialism for really equitable international economic relations.

The USSR and the other CMEA countries are making great efforts in transferring to all interested newly independent states their considerable experience in economic construction, scientific and technological, economic and industrial cooperation, their experience in training and effective employment of national personnel, as well as their experience in working out and carrying out plans of socio-economic development.

"No one should have doubts", was noted at the 26th CPSU Congress, "that the CPSU will continue the policy of promoting cooperation between the USSR and the newly free countries, and consolidating the alliance of world socialism and the national liberation movement".

The results of such equitable and mutually beneficial cooperation alongside with the efforts of young states to mobilize their internal resources has had a positive impact on accelerated development of the leading branch of economy - that of industry, and manufacturing industry in particular.

This accelerated industrial growth has been observed in developing countries in the years of independence. The average annual increase of industrial production in countries now reckoned among the group of developing countries was 3.7% in 1937-1948; the rates of growth almost doubled in 1949-1965, amounting to an annual average of 7.5%.

In the years 1965 - 1979 it increased to 8%, and although in the recent decade (1973 - 1982) the rate of industrial growth of the developing countries considerably decreased - in the first instance under the impact of the economic crisis of capitalism in the mid-1970s and in the early 1970s (to 5.8% in 1973-1980 and to 4.7% in 1973-1982) - even in those years it was 1.5 times higher than in industrialized countries. By 1982 the industrial output in developing countries exceeded the corresponding index of pre-war 1938 by more than ten times.

In general, in the post-war period the rates of industrial growth considerably outstripped those of industrialized countries. But their rates were lower than in the (socialist) CMEA member countries. Initially in the 1950s this tendency became apparent in the extractive industry, but during the next decade also in the manufacturing industry of the non-socialist world.

According to the per capita date, industrial output in industrialized countries was increasing by 1% per annum from 1973-1982, whereas in the major regions of the developing countries, apart from Latin America, corresponding indices were twice as high. A new process of bridging the enormous gap between imperialist states and former colonial periphery has been initiated.

Table 1. Annual rates of industrial growth

	aggregate industrial output				industrial output per capita			
	1950-1960	1960-1970	1970-1978	1978-1982	1950-1960	1960-1970	1970-1978	1978-1982
developing countries	6.8	7.2	6.5	2.5	4.6	4.7	3.9	0.4
industrialized capitalist countries	4.6	5.8	3.5	1.3	3.4	4.7	2.6	0.2

SOURCES: "International Life", 1979, 39 and UN, 1983.

The tendencies observed above led to a certain increase in the share of aggregate industrial output of capitalist world (from 9% in the early 1950s to approximately 15% in the late 1970s) and in net output of its manufacturing industry (from 6.9% in 1960 to over 10% in 1980).

The increasing importance of industrial production in GNP in developing countries should also be noted. From a share of about 25% of total material production of developing countries in the early 1950s, it grew to almost 40% by the late 1970s, while the share of agricultural production decreased from 60% to 30% and less than 20% in the GNP.

In the early 1960s the ratio of industrial output per capita in the developing and industrialized countries was 1.32 for Asia, 1.28 for Africa and 1.5 for Latin America. By the mid-1970s this marked gap had considerably narrowed - to 1.23, 1.18 and 1.4 respectively, and this tendency is continuing.

One should make a reservation that the tendencies under observation can't always be traced in the course of analysis to the industrial development of a particular developing country. The point is that regions and countries are characterized by an extreme unevenness of development. In the period 1970-1976 the average annual rate in the manufacturing industry constituted only 2.5% for the thirty least developed countries, while in the rest of developing countries non-exporters of oil amounted to 8.4% and oil exporting countries to 11.6%. In recent decades the largest portion of industrial production inceases in the zone of national liberation has fallen upon a dozen of states and territories (Brazil, Mexico, Argentian, India, the Republic of Korea, Hong Kong, Singapore). On the other hand, it should be taken into consideration that accelerated industrial development of liberated countries to a great extent was connected with investment policy of transnational corporations in this sector of the economy in Asian, African and Latin American countries. That is to say that in giving a final assessment of the results of industrial development in liberated countries one should distinguish between the growth of national industry proper and expansion of industrial enterprise of foreign capital, especially transnational corporations.

No matter what assessments are made of the industrial structure in developing countries and of the impact of highly developed capitalist and socialist countries, one should always proceed from the specific conditions of the country under study and try to avoid application of abstract schemes and patterns tested under other historic, geographical and natural conditions. Thus, for example, for developing countries with rich mineral resources and large population (India, Brazil, Nigeria and others) the Soviet experience of industrialization and the creation of multi-branch production complex based on extensively developed specialization and cooperation is well justified.

At the same time, in dozens of major developing countries with limited resources and limited internal markets, the creation of full industrial complexes is predictably impossible and irrational. In many such countries special importance should be given to the ability to use the advantages of international division of labour, the participating in specialization and cooperation on a regional, as for example, in CMEA countries or on a global scale. That is why in similar cases an industrial structure of the national economy that considers the possibility and necessity of exceeding the rate of growth of a limited number of industries, for the development of countries that have favourable internal and external conditions, might prove justifiable. Cuba serves as an example of such rational cooperation with CMEA countries.

As most general trends in changes in the structure of industrial production of developing countries on the whole, for the past decade they have been connected mainly with the changes in the correlation between heavy and light industry. And here, as the meeting of experts in Bangkok pointed out, it was the experience of the USSR and other CMEA countries that exerted the decisive influence. On the whole, the growth rates of manufacturing industries in the developing countries exceeds that of light industries, as a result the share of heavy industry in the gross output of the whole manufacturing industry in developing countries increased from 33% in 1955 to 50% in 1975. And it has continued to increase - though slower - for the last seven years (1976-1982).

The tendency to accelerated development in the extractive industry as compared with the manufacturing industry in developing countries has been noted. It was connected with the speedy development of the oil and gas production, while the production of other mineral raw materials was growing at a slower rate than the production even in the light industries in developing countries. In the 1970s the rate of development of the manufacturing industry in the developing countries began for the first time to exceed the rate of development in extractive industry, thus outlinging a new tendency to decrease the share of the extractive industry in the total volume of industrial output.

The correlation between large-scale and small-scale production is a peculiar problem of industrial development of developing countries. In contrast to the West, where industrial development led to the ousting of small-scale production by large-scale production, it is not possible to trace any tendency of this kind in developing countries. In most of these countries small-scale production increases both in its absolute volume of output and in the number of enterprises. No doubt, small enterprises in many ways do not meet up-to-date demands of industrial development. But socio-economic conditions in developing countries often not only justify the existence of small-scale production but make it necessary to render systematic and all-round assistance, including technological assistance from the state and international organizations. The UN programme for the Third Development Decade for the 1980s deems it necessary to stimulate (within the framework of the complete industrial structure) the development of labour consuming medium and small-scale industries which are effective and create wide opportunities for employment.

But this does not mean that small and medium-scale production can be regarded as the basis of industrial development of newly free countries as often ideological advocates of neocolonialism claim. The same programme for the Third Development Decade focuses on a "balanced industrial development of heavy light industry with its main branches, large, medium and small-scale industrial units". (UN 1980, 7).

The traditional policy of Western monopolies concerning industrial development of newly free countries has for a long time been a policy of restraining the formation of an independent manufacturing industry in Asian, African and Latin American countries. With the attainment of national independence by former colonies this policy became more difficult. Therefore as was back in the 1960s, a new tendency began to take shape in Western capitalist countries - a tendency to adapt industrial development in newly free countries to the needs of the main imperialist centers and to channel the development in a way which would tie the developing countries to the economies of imperialist states even closer as the raw materials and energy crisis develops and as ecological problems, contradictions between labour and capital become more acute in the West.

Moreover, monopolies increasingly acquire additional incentives to transfer to backward countries those industries which require a lot of energy, materials, living labour and pollute the environment. As a result, a number of new industries have been formed in developing countries to serve as an appendage to the industrial potential of the West and certain enterprises were from the beginning turned into subcontractors of foreign monopolies. At present, one very often faces the situation where newly created enterprises produce intermediate products (assemblies, details, etc.) for more complex products manufactured by international monopolies. These enterprises do not possess industrial independence and finally become appendages to multinational corporations.

The realization of the new idea "to transfer industries" within the framework of the existing international economic order may easily lead to the growing expansion of TNCs in developing countries. In any case, including this idea into the North-South dialogue will inevitably bring about new Western demands concerning the creation of a favourable investment climate for private capitalist monopolies in developing countries.

Eliciting the extent of using industrial development of this or that developing country by international monopolies in their own interests under the slogan of "equal partnership" has become today a very important task of the analysis of industrial development.

In their struggle against growing expansion of foreign capital for securing conditions for independent development of their national industry, newly free countries find support in growing industrial cooperation with the socialist world. With economic and technological aid of the socialist community more than 2500 industrial projects have been built and are being built in Asia, Africa and Latin America.

Intensified cooperation of developing countries with socialist countries strengthens their position in relations with imperialist states, contributes to the strengthening of the state sector in the industry of developing countries and makes it possible to effectively use elements of planning in their economic life.

Working out long-term plans for developing countries singles out prospects, directions and scale of their industrial development, all these being decisions in the settlement of the key problem - liquidation of economic backwardness. For it is here that the roots of progress of newly liberated state lie. The impact of the world economy on the developing countries, the extent to which they will make use of the experience of socialist countries, and their cooperation with the latter determine the success of their plans.

Judging by the long-term plans (5-10 years) of socio-economic development of the countries of socialist orientation mapped out and adopted in early 1980s as well as by the contracts concluded by developing countries with CMEA countries, greater assistance will be given to them by CMEA countries in the construction of enterprises of manufacturing industry and energetics. With this aim in view it is planned to develop such forms of cooperation as production co-operation, compensatory agreements, joint stock companies, transfer of new industrial know-how, licencing agreements, assistance of the engineering type. Moreover the conducting of joint research and development in various fields of science and technology, the setting up of joint consultation-designing bodies, and the supplying with industrial, economic and scientific and technological information is also forseen.

The successful implementation of the Complex Programme of socialist economic integration of CMEA countries enhances the attraction of their example for developing countries and exerts an ever growing influence on them in the direction of developing integration processes, based on the principle of equality, mutual benefit and non-interference in each other's internal affairs.

The experience of co-operation between small socialist countries with large ones has demonstrated that exactly this type of integration is effective for developing countries and helps them rationally develop their own industry as well as to industrialize the whole econonmy on the basis of the latest achievements of the world scientific and technological progress.

The planned development of the economy of CMEA countries, the strengthening of the state sector in developing countries, and the introduction of planning into their economy, especially in the countries with socialist orientation, create a firm economic basis for co-operation between socialist and developing countries and open up favourable prospects for its broadening.

Economic co-operation between socialist and developing countries is acquiring a long-term character by means of signing bilateral and multilateral intergovernmental agreements. It is based on establishing and broadening ties between planning organs of CMEA countries with planning organs of developing countries.

The system of intergovernmental agreements is of special importance for newly independent states, solving complicated problems of the fundamental reshaping of backward economic structure in conditions of scientific and technological revolution, because it regulates the whole economy and external economic ties.

The broadening of economic co-operation between socialist and developing countries is dictated not only by marketing but also by global structural changes in the world economy. It is first of all related to the problems of raw materials, fuel and power, and food, as they have a long-term nature. General economic problems, caused by the deepening and sharpening of the economic crisis of capitalist countries have aggravated lately. It stimulated the interest of developing states in cooperation with socialist countries.

The comparison of the experience of capitalist and COMECON countries in solving such major international economic problems as the problem of raw materials, power, foreign currency, in leveling the development of cooperating countries and in overcoming economic backwardness of countries in general as well as of their separate regions convinces leaders of liberated countries of the advantages of production cooperation with socialist countries.

Marx' prophetic words, that not the capital but the working class in the course of class struggle will come to "the harmonious national and international coordination of public forms of productivity" (Marx and Engels, 553) are becoming true.

Under the conditions of composite socialist economic intergration, developing on the basis of public ownership, in combination of interests of separate countries as well as of interests of the whole socialist community, sharp contradictions which separate the interests of some countries and their organizations and corporations under capitalism do not in general exist.

That is why newly liberated countries, searching for the alternatives of cooperation with monopolies of capitalist countries, more often put forward production and science and technical co-operation with COMECON countries as a perspective form.

The concurrence of long-term strategic arms in their anti-imperialist, anti-monopolist and anti-colonial struggle form the basis of the growing economic cooperation between socialist and developing countries. Exactly this type of co-operation contributes to the strengthening of political independence and achievement of economic independence of young states.

However when characterizing economic co-operation of socialist and developing countries one should take into consideration some negative factors, such as instability of political and economic situation in many developing countries, unsteady economic development of some countries and regions. It has a negative influence on mutual relations and slows down the development of the objective tendency to the internationalization of the economic life.

A number of objective factors caused by the differences in political and socio-economic structures of the two groups of countries influences the development of economic co-operation of socialist and developing countries.

The insufficiency of a number of exported resources of COMECON countries also exercises restraining influence on the development of economic cooperation between socialist and developing countries. Successful realization of perspective plans of socialist countries for the 1980s and the implementation of their long-term objective programmes of development will without any doubt contribute to the increasing of their export potential and broadening their economic co-operation with developing countries.

The further growth and strengthening of the might of the USSR and other COMECON countries and the all-round assistance and support rendered to developing countries more and more limit the possibilities for the expansion of reactionary imperialist forces and the possibility of restarvation or preservation in this or that form of colonialist and neo-colonialist rule. The assistance and support of CMEA countries thus promote the further development of struggle of newly independent states for the creation of their independent national economy.

The establishment and development of broad economic ties with the USSR and other CMEA countries exercises a stabilizing influence on the economy of developing states. For CMEA countries the development of economic co-operation with developing states is one of the ways to deepen their production specialization and co-operation. It also contributes to the further growth of their productive forces and to the more complete use of the advantages of the international division of labour. Thus the co-operation between socialist and developing countries is becoming a vital factor in the acceleration of their industrial and socio-economic rates of development.

The principled policy of CMEA countries in the field of economic and scientific and technical co-operation with newly born states was once again confirmed by the decision of the XXXVI Session of the CMEA in 1982. The communique, signed at the Session, underlined the importance of strengthening co-operation in the field of economy, science and technology with the countries orientating towards the socialist way of development and trying to attain closer contacts with CMEA as well as with all developing countries. Speaking at the XXXVI CMEA Session, N. Tikhonov, Chairman of the Council of Ministers of the USSR, stressed that special attention should be drawn to the deepening of multi-lateral cooperation with the countries which had chosen the socialist way of development. It is necessary to promote the drawing of interested countries into the activity of CMEA with the aim of their gradual acquaintance with the work and strengthening of their economic ties with the socialist community.

The cooperation with countries of socialist orientation is directed at rendering support of these countries' efforts to eliminate positions of imperialist monopolies and provide the people's state with commanding positions in the economy, to go over to the planned development of productive forces, and to strengthen the state machinery with qualified national personnel.

Economic, scientific and technological assistance of CMEA countries, their practical actions aimed at strengthening independence of developing countries acquire special significance now that the USA and their NATO and other-aggressive-blocks' allies intensify economic expansion to newly liberated countries.

The fruitfull solution of problems of national development and economic cooperation could be speeded up and facilitated as a result of the joint struggle of socialist and developing countries against the arms race imposed by the USA and other imperialist countries, for effective measures in the sphere of disarmament, for stable peace and security of the peoples on our planet.

Brief conclusions and proposals

- Industrial production in newly liberated countries is developing in conditions and under the impact of confrontation of two world social systems;
- The exploiter capitalist classes show frantic resistance to leaving the historic arena. Their attempts to prolong the existence of the capitalist way of production are seen in particular, in imposing it upon developing countries as neo-colonialism;
- Neo-colonialism is a new form of exploitation and dependence, corresponding to the qualitative changes which are taking place in the capitalist way of production;
- Transnational corporations which have become the most important factor in world capitalist economy, require such conditions under which it would be possible to turn the world into one large "enterprise" when developing countries would play the role of branches;

- Developing countries could solve their common national problem - the elimination of economic backwardness - when capitalism oriented, only by increased economic dependence by privation and suffering of the majority of the population;

- As far as the industrial production is concerned, the developing countries are industrializing and the national liberation movements are growing and the capitalist system has a tendency to a further aggravation of contradictions between the industrialized capitalist countries and developing countries. These contradictions will inevitably increase the number of socialist-oriented countries;

- The growth of the economic power of the political and ideological impact of world socialism as well as the interaction of all forces of international revolutionary process to a great extent contribute to strengthening this trend and translating the socialist perspective in developing countries into life;

- Overcoming the inertia of the old inequitable economic ties formed in the colonial epoch countries of Asia, Africa and Latin America are actively developing new economic, scientific and technological ties. They intensively cooperate with each other and with socialist countries. This course was approved by developing countries at the conference "South-South" held in Delhi in February 1982 as well as at the summit conference of non-aligned countries in Delhi in March 1983;

- Delegates to both Delhi conferences spoke in favour of a speedy introduction of a just New International Economic Order (NIEO). At the same time they pointed out the danger of imperialist attempts to try and impose its norms and principles, its plans to modernize world economic ties during the talks on the NIEO. Developing countries should do their utmost to prevent it;

- The analysis of industrial production in the 1970s and the early 1980s shows that the trend towards integration and regionalization gradually prevails over isolationism and autarchy, which objectively leads to erosion of world economic ties and will create various opportunities for their democratization ;

- The introduction of the NIEO would step by step restrict the sphere of uncontrolled domination of imperialism, reduce its reserves, weaken it, strengthen solidarity of all anti-imperialist forces, create conditions for a speedy development of industry and structural reshaping of economy of newly independent states on a new industrial progressive basis;

- Certain results of industrialization of developing countries are discernible even today and they will be more tangible in the future. It is along this road that many developing countries are making the greatest progress;

- However, the process of industrialization of developing countries encounters serious internal and external obstacles. It is the opposition of internal reactionary forces to progressive socio-economic transformations in developing countries as well as the opposition of external forces to restoration of national sovereignty over natural resources and their exploitation in the national interests of developing countries. Western diplomacy opposes effective control on the part of developing countries over activities of private foreign capital and transnational corporations;

- The results of the 1970s and the early 1980s revealed considerable irregularities in the process of industrialization among various groups of developing countries. Some of them increased their growth rates, others especially the least developed, decreased their growth rates or stabilized them at very low levels;

- In both groups of countries social problems have become more acute and the number of the poor, starving and unemployed is on the rise. The problem of internal accumulation has been aggravated external conditions for getting loans and credits so as to pay the ever increasing state debt and to cover the deficit of the balance of payments are worsening;

- Under the influence of internal and external factors and certain mistakes, many developing countries change their industrial policy. Strategic goals are often replaced by tactical ones, and less attention is paid to long-range goals of industrial development and industrialization; and

- The loss of a long-term perspective and of the ultimate goals of industrial development may considerably slow down the solution of the main problem of developing countries, namely elimination of their economic backwardness and putting an end to their dependence on imperialism.

It is advisable that the solution to the problem of industrialization of any one country - probably it is unrealistic to set such a goal for all countries - should be sought along the following lines:

- enhanced role of state enterprise;
- economically sound protectionism of developing national industry;
- use of tools of current and long-term planning and programming;
- priority of industry over agriculture;
- more active participation of developing countries in international industrial cooperation, above all with the CMEA countries, which are natural allies of developing countries in their struggle for establishing equitable and mutually advantageous relations; and
- optimal combination of national and foreign technology with a view to creating national scientific-technological basis and efficient highly skilled national personnel.

The choice of main criteria of industrialization will play an important role in determining the strategy and policy of industrialization of developing countries at UNIDO IV. Taking into account the importance of external factors (especially such as the structural reshaping of world economy, provision of energy and raw materials, adjustment to other world economic processes), priority should be given to internal criteria in accordance with the concepts of national and collective self-reliance.

Priority to external criteria in conditions of the TNC domination in world capitalist economy would mean dooming developing countries to a dependent, trying-to-catch-up, imitating type of industrialization, subordinated to the interests of industrially developed capitalist countries and their transnational corporations.

The quantitative indices of industrialization, determined by the Lima Declaration (a 25% share of developing countries in world industrial production in the year of 2000) and the Arusha Declaration (30% of world export of manufactured goods) should be supplemented with some qualitative characteristics such as the complex development of national industry on a modern scientific-technological basis, an increased volume of industrial production per capita, higher material standard of the working people, the all-round development of agricultural industry and the solution on this basis of the problem of food provision, the search for rational ways of developing small, medium and large-scale production and the optimal balance between them, and the establishment of the balance between capital-consuming and labour-consuming processes.

The fact that the industrial development of developing countries is affected by the impact of two socio-economic systems has a certain bearing on the policy and strategy of industrialization of newly independent states and leads to the use of entirely different forms and methods of industrialization in these countries.

As is known the socialist method of industrialization is based on public ownership of means of production and planned economy, whereas, the capitalist method is based on private property and uncontrolled market regulation. The future belongs to the first method. The second method, as shown by the experience of many developing countries, has no prospects.

In the past, a lot of conceptions have emerged dealing with economic development including industrial development and the priorities in the development of separate industries as well as in proportion between them. These conceptions reflect only separate stages of development, or the requirements of separate countries or even separate groups of the population in those countries, and it would be reasonable to unite them with the long-term policy and strategy of industrialization, giving preference to the latter as an an objective beacon to which all other conceptions must be oriented.

Without a comprehensive approach to the policy and strategy of industrialization of developing countries, the continuity of the conceptions of separate stages of development may be broken; final objectives will be lost sight of; main resources will be channeled, as before, into the industries and spheres, meeting the requirements and interests of foreign capital; and local executives will be deprived of the opportunity to orient the process of industrial development to the major long-run national interests.

The experience of socialist and a number of developing countries has shown that a comprehensive approach to the policy and strategy of the industrialization of the developing countries gives an opportunity to put the process of a rapid industrial development on a national basis and ensure more favourable conditions for the participation of developing countries in international trade and international industrial specialization and co-operation.

The experience of the CMEA countries' co-operation with the developing countries has shown that the most effective solution to the problem of industrialization is the construction of key enterprises around which a production-territorial complex is formed later on. Such a complex should consist of a number of interrelated production processes paralleled in due time with the development of service enterprises, suppliers of raw materials and separate parts and units within the framework of cooperation, internal and external consumers of the production of an industrial complex.

Production-territorial complexes are of value because they:

- stimulate the development of specialization and cooperation in developing countries and among developing and other countries, especially within the framework of integration of developing countries;
- give an opportunity to master and use the world achievements in new technique and technology;
- promote rapid development of their own scientific and technological research;
- speed up the elimination of one-sided industrial development and hypertrophy of separate productions, and of one-sided specialization in the international division of labour; and
- stimulate a large-scale training of local personnel of various kinds of qualification and specialization.

Mastering and effectively using the achievements of world science and technology is of special interest for developing countries. The experience of co-operation between developing countries and the CMEA countries has shown that the strategy of co-operation is the most effective when it is based on national combination of the use of the new world technological and scientific achievements and developing countries' own research. In the long run it will ensure the independent development of both industrial and scientific and technological potential and equal participation of the latter in the international division of labour and in international scientific and technological research.

It should be noted in this connection that the imported sophisticated equipment and the related scientific and technological knowledge do not produce the desired results and remain a foreign body in the developing economy unless their application is followed by a mass-scale education and training of local specialists and the establishment of a diversified scientific and technical infrastructure comprising a network of general education and vocational schools, secondary special and higher education facilities, experimental research and testing laboratories, scientific and research institutions, designing bureaus, scientific information centres. It also demands the elaboration of legislative norms and the creation of state bodies that would facilitate the normal functioning of the new sophisticated equipment and the organization of a dependable material and technical supply through a centralized current and long-term planning programming.

Very often those branches of the economy, the development of which is vitally important for national revival and overcoming the disintegration of an developing economy are outside the bounds of technological progress. Moreover, the gains of technological progress enrich relatively limited strata of the population; the differentiation of profits sharing is thus intensified and possibilities of securing optimal employment at a given investment level are not made use of.

The setting up of a genuinely national independent economy is a time-consuming process, calling for utmost mobilization of resources of the whole nation. An analysis of the economic undertakings of the young states shows that the most rational and effective solution of the problem is possible only within the context of a comprehensively developed state sector and a planning appliance for it is only on the basis of a long-term economic policy rooted in a firm material and technical foundation of the public rather than private sector that the use and application of the imported scientific and technological experience and a creation of a national scientific and production potential are possible.

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